DOCUMENT RESUME

ED 261 506 EC 180 575

AUTHOR	Riccio, James A.; Price, Marilyn L.
TITLE	A Transitional Employment Strategy for the Mentally Retarded: The Final STETS Implementation Report.
INSTITUTION	Manpower Demonstration Research Corp., New York, N.Y.
SPONS AGENCY	Employment and Training Administration (DOL), Washington, D.C.; Ford Foundation, New York, N.Y.
PUB DATE	Sep 84
GRANT	DOL-33-36-75-01
NOTE	211p.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC09 Plus Postage.
DESCRIPTORS	*Education Work Relationship; *Employment; *Job Placement; *Mental Retardation; Models; Program Costs; *Program Implementation; *Transitional Programs
IDENTIFIERS	*Structured Training Employment Transitional Serv

ABSTRACT

The report describes the operating experiences of the Structured Training and Employment Transitional Services (STETS) demonstration, a program designed to prepare mentally retarded young adults for regular private sector employment. The STETS program was managed by several types of agencies in five cities. Evaluation information on STETS operation is presented for five topic areas (sample findings in parentheses): (1) recruitment, referral, and intake (the sites did not reach their contracted slot levels); (2) training and work experience (deficiencies in participants' work habits and skills, inadequate work skills); (3) job development (mixed results of the job development efforts due to such obstacles as the state of the economy); (4) participant performance and placement outcomes (widely varying rates for placing clients into subsidized jobs); and (5) program operating costs (estimates indicate that participants' in-program output was an important offset to program costs). It was concluded the model is feasible and can be operated on a fairly large scale by different types of organizations using diverse approaches. (CL)

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A TRANSITIONAL EMPLOYMENT STRATEGY FOR THE MENTALLY RETARDED

THE FINAL STETS IMPLEMENTATION REPORT

JAMES A. RICCIO
WITH
MARILYN L. PRICE

MDRC

SEPTEMBER 1984

MANPOWER DEMONSTRATION
RESEARCH CORPORATION

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A TRANSITIONAL EMPLOYMENT STRATEGY
FOR THE MENTALLY RETARDED

The Final STETS Implementation Report

James A. Riccio
with
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Research Corporation

September 1984

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EC 180 575

This report was prepared by the Manpower Demonstration Research Corporation as part of its responsibility to carry out and evaluate the Structured Training and Employment Transitional Services (STETS) Demonstration under Grant No. 33-36-75-01 from the Employment and Training Administration, the U.S. Department of Labor. The Ford Foundation also awarded MDRC a planning grant for the demonstration.

The points of view or opinions stated in this document are not intended to represent the official position or policy of the funding organizations.

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ACKNOWLEDGMENTS

James Riccio is the principal author of this report. Marilyn Price is primarily responsible for Chapter II, but was also a main partner in collecting and interpreting the data on which the report is based. William Diaz, a former MDRC Senior Research Associate, played a major role in designing the research plan, collecting field data from the sites, and assessing the sites' experiences in implementing the program model.

Michael Bangser, MDRC's Coordinator of the STETS demonstration, is acknowledged with special gratitude. His detailed understanding of the workings of the project and keen analytical insights greatly enhanced the accuracy and quality of this report. Judith Gueron, as head of MDRC's research staff, provided overall guidance and valuable feedback on earlier drafts of this study. The project further benefited from the assistance of Barbara Blum, MDRC's President, who contributed her special knowledge of the field of mental retardation. The STETS Advisory Committee, comprised of representatives from MDRC's Board of Directors and others experienced in the field, provided helpful direction throughout the demonstration.

Staff members from Mathematica Policy Research, Inc. (MPR), who are conducting the STETS impact and benefit-cost analyses, also contributed to this report. Stuart Kerachsky, Anne Bloomenthal and Susan Stephens are responsible for the analysis in Chapter VI, and Craig Thornton prepared a paper which served as the basis for the discussion in Chapter VII on the benefit-cost analytical framework, the value of output study and the costs of other programs for mentally retarded persons. The MPR staff also offered helpful advice on the design of MDRC's employer survey, and Paul Rynders collected some of the data used in that study.

Also appreciated are the efforts of MDRC's operations staff, particularly Robert Ivry, James Healy, Michael Redmond, Delia Council, Kay Sherwood and Beneta Burt who produced detailed information on site operations throughout the project. Sheila Mandel and Susan Blank read and critiqued previous drafts of the report and provided invaluable editing assistance.

Stephanie Sheber, Karen Paget, Darlene Hassselbring and MDRC data clerks, particularly Roger Petree, were responsible for the STETS management information system and assisted with the employer survey and job development contact study. The employer survey was fielded by David Gerould and Ann Casebeer and benefited from many good suggestions from Robert Cook. Della Sue provided computer support for much of the analysis and produced the tables in this report, with assistance from Hilary Kopp.

Finally, appreciation is extended to the many staff members, participants, referral agents and employers who have been involved with STETS. Their gracious cooperation with the research demands of the demonstration made possible the knowledge that has been gained from this effort.

PREFACE

In a society where employment opportunities for many groups of disadvantaged people are limited, the mentally retarded often encounter particular difficulty in achieving steady work in the regular labor market. This study, the first of two related research reports, describes the operating experience of the Structured Training and Employment Transitional Services (STETS) demonstration, a program designed to prepare mentally retarded young adults for regular private sector employment.

In considering the lessons of this study, one must first recognize the fact that transitional employment initiatives such as STETS represent a major change over a relatively short time span. Few of us working in the field of mental retardation in the 1960s would have predicted that systematic efforts would soon be made to bring mentally retarded citizens into the regular labor market. The process, which began with a few small pilot projects in the 1970s, coincided with a broader trend toward "mainstreaming" disabled citizens. The STETS demonstration has built on these encouraging earlier experiences by conducting a somewhat larger program within the framework of a comprehensive research design. The research is capable of providing hard evidence in a field too often characterized by anecdote and impression.

Nevertheless, the progress to date should not obscure the many challenges facing programs that seek to help mentally retarded persons find and keep work. While this study points to a number of important achievements, it also highlights areas where program operators can expect to confront difficulties. Managing an employment program for mentally retarded workers requires effective recruitment strategies (directed at potential participants, their parents and the agencies that serve them), a sensitive but firm hand in acclimating participants to the dictates of the workplace, and above all, the ability to develop sufficient, appropriate jobs for participants. The lessons described in this report on the five sites taking part in the STETS demonstration provide a useful guide to others -- program operators, public officials and the business community -- who become involved in similar initiatives in the future.

The next report on the STETS demonstration, due in mid-1985, will determine whether the particular mix of jobs and services provided by the program improved the employment, earnings and independence of participants after they had left the program. This study, based largely on interviews with individuals randomly assigned to either a participant or control group, will also compare the economic benefits and costs of the program. In addition to providing a reliable basis for further development of public policies in this area, the evaluation will yield important lessons in the application of social science research tools to employment programs for mentally retarded citizens.

The studies will not, of course, provide all the answers. The process of learning more about alternative approaches -- and how best to integrate them into the mainstream of the service delivery system for this population -- will need to continue.

Barbara B. Blum
President

EXECUTIVE SUMMARY

The subject of this report is the implementation of a transitional employment strategy designed to help young, mentally retarded adults become competitively employed. The Structured Training and Employment Transitional Services (STETS) program was operated from the fall of 1981 through December 1983, with follow-up services for a small number of participants continuing into early 1984. Principal funding was provided by the U.S. Department of Labor, with a planning grant from The Ford Foundation. Local projects also raised almost 60 percent of their operating revenues from a variety of public and private resources.

The STETS program was managed by several different types of agencies in five cities: a sheltered workshop in Cincinnati; an "affirmative industry," which in many ways resembles a sheltered workshop, in St. Paul; a state agency in Tucson; and nonprofit training agencies in New York and Los Angeles. Each of these sites was part of a major research effort focusing on three sets of questions:

> Implementation: Is the program model feasible to implement, and what advantages and disadvantages are associated with alternative strategies?
>
> Impact: How effective is the program in increasing participants' post-program employment, earnings and independence, and how does it affect their use of alternative services and the receipt of transfer payments?
>
> Benefits and Costs: How do the economic benefits of STETS compare to the costs of operating the program?

To answer impact and benefit-cost questions, 496 applicants to STETS were randomly assigned to either the program (the experimental group) or to

a control group. Members of the control group could not receive STETS services but could seek other services available in the community. Data for the impact analysis were collected through in-person interviews with members of the experimental and control groups soon after random assignment, and again at 6, 15 and 22 months after the initial interviews.

The Manpower Demonstration Research Corporation (MDRC), an organization that designs and evaluates innovative social programs, has held overall responsibility for both the operation and evaluation of the STETS demonstration. MDRC was directly responsible for the implementation analysis, while a subcontractor, Mathematica Policy Research, Inc., is conducting the impact and benefit-cost components of the research (scheduled for completion in 1985) under the general supervision of MDRC.

I. The STETS Model

STETS grew out of the Supported Work demonstration, a transitional employment program which proved effective in helping certain groups of hard-to-employ individuals enter the labor market. Supported Work emphasizes close supervision, peer support and a gradual increase in productivity demands. In STETS, these basic principles were incorporated into a three-stage model with the following features:

Phase 1: Participants were given up to 500 hours of paid employment, along with training and support services, provided in a low-stress work environment. This introduction to work took place in sheltered settings in Cincinnati, Tucson and St. Paul, and in public and nonprofit agencies in New York and Los Angeles. In the two non-sheltered sites, wage subsidies were available to employers.

At all sites, program counselors assessed, trained and monitored participants as they performed their jobs, and provided both individual and group counseling on job-related issues.

Phase 2: Participants were placed into non-sheltered positions that required more responsibility than Phase 1 jobs, and counselors continued to provide training and support. While jobs could be subsidized or unsubsidized, and in the public, nonprofit or private sectors, Phase 2 was expected to operate as an on-the-job training experience. Thus, an emphasis was placed on developing positions that could evolve into regular jobs and ones that entailed the kinds of demands normally associated with such jobs.

Participants were to stay no longer than 12 months in Phases 1 and 2 combined, within a 15-month period. They made the transition from Phase 2 to Phase 3 when both their employers and program staff viewed them as regular members of the company's workforce.

Phase 3: All jobs at this stage were unsubsidized. Staff members offered participants support and guidance on an as-needed basis for an additional six months to aid in their adaptation to regular employment. Generally, the level of support was much lower than in earlier stages of the program.

The STETS target population was an 18- to 24-year-old group who had full-scale IQ scores between 40 and 80 or other verifiable evidence of moderate to borderline retardation. Additionally, eligible persons could have only limited prior work experience: They could not have been employed in a full-time unsubsidized job for more than six consecutive months in the two years before program entry, and they could not be working in an unsubsidized job for more than ten hours per week at the time of enrollment.

II. Lessons on Program Operations

It is important to note that STETS operated for a relatively brief period of time, much of it marked by funding uncertainty. Consequently, the sites did not have an opportunity to reach a stable period of operations. Nevertheless, much has been learned about the program.

The most general conclusion of the implementation analysis is that the STETS transitional employment approach is feasible and can be operated on a relatively large scale (e.g., 40 to 50 slots) by different types of organizations using diverse methods. The sites have shown, with varying degrees of success, that they could recruit participants, develop training positions in real work settings, provide trainees with helpful support services, and move many into unsubsidized jobs. The average length of enrollment was 10.4 months, and 42 percent of all enrollees were placed into regular jobs. The average cost of operating the program was $7,553 per participant and $8,715 per year of service, with actual costs varying widely across the sites.

STETS proved, however, to be a challenging program to operate. One general difficulty was the local funding situation, which sometimes constrained the sites' flexibility in implementing the model. For example, some funding agencies strictly limited the circumstances under which they would provide wage subsidies for participants; others were interested in funding only one component of the program or one category of expenses. Future programs would therefore benefit from more flexible funding arrangements or multiple sources of revenue without overlapping restrictions.

Other lessons on operating STETS are summarized below.

A. Recruitment and Referral

STETS recruitment was generally effective, resulting in a reasonably diverse group of participants, ones who were likely to encounter significant employment problems. Enrollees were 60 percent male and 40 percent female; over two-fifths were black or Hispanic. They were, on average, 20 years old, and 41 percent had at least one secondary handicap in addition to mental retardation. One-third had never attended a mainstream school since the age of 14, and almost 90 percent had not taken any classes as part of a regular curriculum. The average IQ of enrollees was 64. Almost half were mildly retarded, and 38 percent were in the borderline range. The proportion of moderately retarded persons, 13 percent, was lower than expected.

While several reasons could be offered for the sites' difficulty in recruiting moderately retarded persons -- including the fact that they are much less prevalent than mildly and borderline retarded persons in the general population -- the experience of the Cincinnati and Tucson sites suggests that linkages to other agencies serving this group are particularly useful. Some of the sites lacked these contacts.

B. Work Experience, Assessment and Training

During their tenure in STETS, participants manifested a variety of work-related problems that staff attempted to correct or improve. Among the problem areas were attendance and punctuality; interaction with supervisors and co-workers; concentration and endurance; initiating, completing and changing tasks; grooming and hygiene; work speed; remembering and understanding how to do certain tasks; and working according to a preset schedule. While not all participants had difficulties in each area, the problems were common enough to signal a real need for work experience, training and support services. This finding supports the program's goal of providing those interventions and gradually increasing the demands and responsibilities of the jobs for participants.

A number of implementation lessons can be drawn from the analysis of the sites' experiences in this area:

- Both the sheltered and non-sheltered approaches in Phase 1 are feasible, although each has advantages and disadvantages. The sheltered approach makes it easier to monitor and instruct participants, reduces the number of external jobs to be developed, and possibly allows the program to be less selective in recruiting clients, since relationships with outside employers are not at risk. The non-sheltered approach, in contrast, provides participants with working environments and types of jobs (usually in the service area) which are similar to those they will face after Phase 1. The non-sheltered approach may also improve the Phase 1 performance of participants who resent working in sheltered workshops or are ready for more demanding jobs.

- Observational techniques are more important than formal testing in assessing participants' work-related problems and needs. At best, formal testing, which was conducted at two sites, served as an adjunct to observation, but was not considered essential by staff members.

- The guidelines restricting participants' length of stay in the program were feasible. The 12-month limit on active participation in Phases 1 and 2 combined proved reasonable, since most participants entered unsubsidized jobs or were otherwise terminated from the program in a shorter amount of time. Furthermore, the 500-hour limit on Phase 1 activities appeared useful for keeping pressure on staff members to develop Phase 2 jobs in a timely manner and to move participants expeditiously into higher-stress and generally more realistic work settings.

- Participants can be trained in real work settings during Phase 2 without unduly burdening the employers. That their work was generally satisfactory is seen in a survey of employers who rated the vast majority of Phase 2 participants as performing as well as or better than other new workers in similar jobs in five areas of performance: attendance (85 percent), punctuality (89 percent), motivation (79 percent), and quality of work (78 percent). Fifty-four percent of participants received positive ratings on all five measures, while almost 46 percent received negative ratings in one or more areas.

- The majority of employers responding to the survey (86 percent) said they would become involved again in the program if asked to do so. Further evidence of employer satisfaction is the observation that 66 percent of participants who entered Phase 3 jobs were hired by their Phase 2 employers.

- Public, nonprofit or for-profit organizations can be used for Phase 2 training. Public and nonprofit agencies may be more willing to allow program staff to monitor participants and to intervene at the worksite. However, for-profit firms generally provide a greater opportunity for a Phase 2 job to turn into a permanent job.

- While the level of program support can be reduced during Phase 3, these services should not be abruptly eliminated. They continue to be important to many participants, who require at least some assistance in adjusting to regular employment.

The question of who among the mentally retarded can handle the demands of STETS and benefit from the program is another important operational issue. Accordingly, this study examined the in-program performance of various subgroups of enrollees. The subgroups were defined by background characteristics at the time of enrollment, including age, sex, level of mental retardation, and past employment-related and educational experiences. While some differences were apparent, a substantial proportion of each subgroup analyzed earned positive evaluations from Phase 2 employers and went on to unsubsidized jobs. This evidence suggests that future programs ought to continue the STETS policy of targeting services to a fairly broad range of mentally retarded individuals. The impact analysis will study this issue further, using the control group and longer-term follow-up data to assess whether the program's impacts vary by subgroup.

C. Job Development

In attempting to assist a large number of clients, an employment program is largely dependent on the effectiveness of the job development effort. In STETS, job development proved to be difficult and time-consuming, often causing serious delays in the movement of clients through the program. Problems often resulted from the sites' overall lack of experience in finding jobs for this population, compounded by the fact that job developers had only limited time in which to strengthen techniques and develop positive "track records" with employers. In addition, participants had characteristics other than mental retardation (such as their young age) that could increase the reluctance of employers to give them jobs. Other problems were the deep economic recession during the demonstration period and, at certain sites, strategies that proved unproductive, such as individual job development rather than the creation of job pools, and not assigning job development tasks to a specialist.

Despite these constraints, many employers agreed to accept STETS workers. Moreover, employers agreed to pay the full wage for 37 percent of Phase 2 participants. This outcome exceeded the expectations of program planners and reduced operating costs.

The employer survey showed that, among Phase 2 employers, 78 percent stated that altruism, expressed as a desire to help participants or the community, was a major reason for taking on STETS trainees. Other relevant factors, rated on a scale from "very important" to "not important at all," were:

- Thirty-four percent of the employers indicated that the financial subsidies during Phase 2 were very important in their decision to take on trainees.
- Among for-profit employers, 19 percent said that the Targeted Jobs Tax Credit was very important in their decision.
- Fifty-seven percent of all employers surveyed said that program assistance in training and monitoring participants was very important, and 38 percent said that participants' prior training in Phase 1 was very important.

These factors would not, of course, ensure that participants would keep their jobs or obtain Phase 3 positions with the same employer. For this group, as for non-disabled persons, work performance is the main determinant of job retention.

Eighty percent of the Phase 3 jobs developed were in for-profit firms. Fifty-three percent were jobs in the service fields, and 19 percent clerical and sales positions. The average starting wage was $3.63, and half of the jobs provided over 30 hours of weekly work.

While most Phase 3 jobs fell into a relatively narrow range (e.g., janitor, porter, dishwasher, food service worker, housekeeper, mailroom clerk, stock clerk, messenger), the positions were located in diverse settings. Thus, future programs of this type can seek jobs from a wide variety of businesses. However, positions in larger firms may tend to take longer to develop because of the many steps that precede hiring decisions.

D. Preliminary Results from the Impact Analysis

A preliminary analysis of the second wave of interviews, conducted with members of the experimental and control groups as part of the impact analysis by Mathematica Policy Research, Inc., offers evidence from another perspective on the feasibility of the STETS approach. The analysis focuses on short-term, in-program impacts, and it shows that, six months after random assignment, over two-thirds of the experimental group was in paid training or non-training jobs, higher than the rate for the control group. Moreover, more experimentals than controls were involved in either jobs, training or school activities. Thus, the program appeared to achieve its short-term goal: increasing the employment-related services received by enrollees.

The final impact and benefit-cost report on STETS will more fully assess the effectiveness of the program by comparing the longer-term labor market and other achievements of the experimental and control groups. It will also determine whether or not the economic benefits of STETS exceeded its costs.

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A TRANSITIONAL EMPLOYMENT STRATEGY FOR THE MENTALLY RETARDED

THE FINAL STETS IMPLEMENTATION REPORT

CHAPTER I

INTRODUCTION

The last few decades have witnessed fundamental changes in the rights and expectations of disabled persons, and in the ways that society has responded to their particular circumstances. At the core of this transformation is the ideology of normalization: a set of principles that would bring disabled persons into the mainstream of American life by giving them access to the social roles and opportunities available to their non-handicapped peers. This ideology is reflected in such notable legislative achievements as Sections 503 and 504 of the Rehabilitation Act of 1973 (in which discrimination against handicapped persons is forbidden in any federally assisted activity) and the Education for All Handicapped Children Act of 1975, which requires public schools to provide a "free and appropriate education" to all 5- to 21-year-old handicapped youths in the least restrictive environment consistent with their needs.

Competitive employment -- that is, regular unsubsidized employment in the competitive labor market -- can be an important part of the process of normalization. Through employment, disabled persons can interact with non-handicapped persons, begin to acquire the financial means to become self-sufficient, and share in the dignity that regular work can provide. As one author said of the mentally retarded (the category of disabled persons studied in this report), "The best way (they) can prove to themselves and others that they are ´normal´ is to have a job" (Ingalls, 1978: 409).

This document is the final implementation report on a demonstration program that sought to help young, mentally retarded adults with poor or no work histories make a relatively quick transition to competitive employment. Known as STETS -- Structured Training and Employment Transitional Services -- the program was run as a research demonstration in five cities, with local operations beginning in late 1981 and ending (except for follow-up activities with a few participants) in December 1983. During this period, the program enrolled 284 young adults. National funding was provided by the United States Department of Labor (DOL) and The Ford Foundation, which supported the project's initial planning. In addition, almost 60 percent of program operating costs in the five cities was raised locally from a variety of public and private sources.

The Manpower Demonstration Research Corporation (MDRC), a nonprofit corporation formed in 1974 to develop, administer and evaluate innovative social programs, has overall management and research responsibility for the STETS demonstration. In its management role, MDRC (with the assistance of others in the field) developed the program model, selected local organizations to implement it, and monitored the local sites to ensure that they were operating within specified program guidelines. The extensive research plan is described in a subsequent section of this chapter.

This report opens with a brief discussion of the nature of the problem which STETS sought to address.

I. Obstacles to Employment Among the Mentally Retarded

It is widely accepted by researchers and policymakers that the employment problems of persons considered to be mentally retarded are numerous, but that, because of a lack of convincing research, their exact scope is difficult to determine.[1] Some generalizations are nevertheless possible.

For example, the evidence suggests that many retarded persons do eventually become competitively employed for at least part of their adult lives, particularly in their middle to late twenties (although little is known about the quality and stability of their jobs). This is especially true of the mildly retarded (commonly defined as persons having IQ ranges from 52 to 68 on the Stanford-Binet test, or between 55 and 69 on the Wechsler Scale) and the borderline retarded (an IQ range from 70 to 85 on the Wechsler Scale).[2] Lack of employment is more extensive among the moderately retarded (IQs of 36 to 51 on the Stanford-Binet and 40 to 54 on the Wechsler Scale) and the severely retarded (20 to 35, and 25 to 39 on the two scales). (See Conley, 1983; Ingalls, 1978.)

The evidence also indicates, however, that even the least disabled of the mentally retarded groups have more difficulty finding and keeping jobs than do their non-retarded peers. Many need special assistance to enter and remain in the competitive labor market, and even then, proportionally fewer hold regular jobs. Among those who do, earnings are lower. The employment obstacles faced by the mentally retarded (which often affect physically handicapped persons as well) in both obtaining and retaining jobs are multiple: negative employer attitudes, their own deficiencies in work skills and habits, and government policies that may discourage disabled persons from seeking competitive employment. These barriers are briefly discussed below.

Studies examining employers' hiring attitudes, while few in number, have typically found that the mentally retarded are among the least preferred of potential workers.[3] In a comprehensive national overview of the needs of severely disabled persons, the Urban Institute reported that:

> Virtually all the studies on employer attitudes have found that large proportions of employers disfavor hiring disabled people....There are also indications that certain groups of the disabled, particularly those with mental and behavioral disabilities and those with severe or aggravatable physical disabilities, are more disfavored by employers than others, though the evidence on this question is not entirely consistent (1975: 324).

When mentally retarded persons do overcome negative attitudes and find employment, their own work limitations may make it difficult for them to retain the jobs. Research has found that, among the more substantially retarded persons, slow work performance and an inability to change routine are important reasons for a job loss.[4] Inadequate work habits are also common, and are a major reason among more mildly retarded persons for loss of employment. All of these factors seem more important than an inability to perform the work. According to one review of the literature:

> Virtually all studies indicate that when retarded people fail on a job, it is not because they cannot perform the task... (Gold, 1975: 256).

Similarly, another researcher states:

> There are a great many jobs in this society that require no intellectual abilities at all, jobs such as stuffing envelopes or routine assembly skills or certain factory jobs that are highly repetitive, and mildly retarded people are able to perform most of these as well as anyone else. The reason why mentally retarded people lose their jobs is almost always because of some personality or behavior problems: they cannot get along with co-workers or with their boss or they are late or absent too frequently or they are unable to concentrate for long periods of time or they have peculiar mannerisms or are emotionally unstable (Ingalls, 1978: 409; see also Conley, 1973: 336).

Two major public income support systems are available to the disabled. Supplemental Security Income, or SSI, is a federally-administered cash assistance program for blind, disabled or old persons with limited resources and income, and is authorized under Title XVI of the Social

Security Act. Social Security Disability Insurance benefits (SSDI), authorized under Title II of that same law, are federal disability benefits paid to workers who have contributed to the Social Security trust funds. However, since benefits are reduced or eliminated when recipients gain income from jobs, it is possible for both programs to adversely affect the employment incentives for retarded persons. The extent of the disincentive is not known, but, for example, a disabled person earning more than $300 per month in 1980 would have been judged capable of "substantial gainful activity" (according to Social Security Administration guidelines) and would no longer have been considered eligible for SSI payments.[5] Medicaid benefits, which are provided to SSI recipients, would have also been forfeited in most circumstances.[6]

Thus, many retarded persons receiving benefits may be discouraged from seeking or keeping jobs because of uncertainty about whether they will succeed in their jobs.[7] Fear of financial loss is also compounded by the complexity of the rules governing the public benefits programs.

II. Employment Programs for Retarded Persons

While the obstacles to competitive employment are considerable, many retarded persons do aspire to work, and a variety of programs attempt to help them achieve that goal.

Traditionally, nonprofit sheltered workshops have been a major source of job training and employment (as well as other rehabilitative services) for the disabled. According to one study, nearly 3,000 sheltered workshops in 1976 served more than 145,000 clients on a daily basis, 61 percent of them mentally retarded (U.S. Department of Labor, 1979). The study estimated that, during that year, the workshops placed only about 8 percent of their clients into competitive jobs.

While important differences exist among workshops (including the degree to which they focus on transitional services), they have, as a group, been criticized for not doing more to help their workers enter the regular labor market; it is generally assumed by researchers and practitioners that many more retarded persons than now make that transition could do so if they were given appropriate training and support services. One reason frequently posed for the workshops' apparent reluctance to emphasize such services is their revenue needs, which usually depend on production contracts, which, in turn, depend on good workers. Another obstacle may be that funding from state rehabilitation agencies is not sufficiently flexible to cover intensive job placement efforts by the workshops (Whitehead, 1979: 19).

The state-federal Vocational Rehabilitation system is another source of employment assistance for retarded and other disabled persons. To be eligible for aid, applicants must have a physical or mental disability that constitutes a major handicap to employment, but not so severe that there is not a reasonable likelihood that the individual will find employment after receipt of the available services, primarily employment-related counseling. Other services include evaluation and assistance with training, job placement and transportation, often provided by other public and private agencies to which clients have been referred.

Public schools also provide employment training, particularly since the passage of the Education for All Handicapped Children Act of 1975. Vocational services are generally viewed as part of the educational process for older students. While it is difficult to generalize about the nature and quality of these school services, they are usually offered in the form of work-study programs in which academic instruction is supplemented by work experience, either in the school or in community businesses and agencies.

Numerous other local organizations that provide work experience and job placement services to economically disadvantaged persons include the mentally retarded and other handicapped persons among their clients. Many of these programs were, in the past, CETA-funded, and some now use resources from the Job Training Partnership Act (JTPA).[8] However, these programs more traditionally served only a small proportion of the mentally retarded population.

Placement and training programs focusing more specifically on mentally retarded persons have included several small, university-based initiatives for severely disabled persons;[9] various efforts on the part of the Human Resources Development Institute of the AFL-CIO; a statewide supported work program for retarded persons in Massachusetts, coordinated by the Bay State Skills Corporation; and a number of small-scale transitional programs in other communities. One national effort to facilitate competitive employment is an on-the-job training program, administered by the Association for Retarded Citizens of the United States, which places retarded persons into public and private sector jobs and subsidizes their wages for an eight-week period. Resources for training retarded and other handicapped persons in competitive worksites are, in addition, available to local programs through the federally-funded Projects With Industry program, which is administered by the Rehabilitation Services Administration of the Department of Education.

Programs serving retarded persons may also draw upon the Targeted Jobs Tax Credit (TJTC) program to encourage private sector employers to hire their clients. Through TJTC, employers can receive a tax credit over a two-year period for part of the wages paid to eligible employees. Mentally retarded individuals receiving SSI or those referred from vocational rehabilitation programs are eligible for TJTC.

However, it should be noted that while varied types of employment assistance are available for this population (as seen in the discussion above), many of the projects are small-scale in nature and limited in scope. Further, it is not clear how effective these programs have been in meeting the needs of this group, particularly because most studies of current and past efforts did not use matched comparison or randomly assigned control groups in assessing program effects. As a result, there has been no reliable investigation of the costs and benefits of most programs operating in the field. There is also little information on the operational experiences of such programs.[10]

In response to this knowledge and service gap, STETS was designed as a transitional employment program of relatively large scale (for this population), offering a program of intensive services targeted to individuals with a broad range of retardation levels. Its extensive research design makes STETS unique among other efforts aimed to assist and learn more about a population of mentally retarded young adults.

III. The STETS Program Model

The STETS demonstration grew out of the operating experience of the

National Supported Work Demonstration, an extensive five-year test of a transitional employment program that stressed work experience in a structured, closely supervised work environment for four groups of hard-to-employ individuals: long-term recipients of Aid to Families with Dependent Children (AFDC), ex-offenders, ex-drug addicts and young school dropouts, many with criminal records.

MDRC held overall responsibility for managing this demonstration, which was rigorously evaluated. The analysis compared the experiences and behavior of an experimental group, which was offered Supported Work, to those of a randomly assigned control group, not offered the treatment. The study found that the program was a cost-effective approach for two target groups, long-term recipients of welfare and ex-addicts. At 27 months after enrollment, welfare women who had taken part in the program were twice as likely to have left the welfare rolls as women in a randomly selected control group. Also, earnings of participants had increased over those of control group members by approximately 50 percent.[11]

Supported Work was also tried on a small scale for mentally retarded persons. Pilot projects were operated by the Vera Institute of Justice in New York City and by Transitional Employment Enterprises in Boston, Massachusetts. While the mentally retarded group was not studied by MDRC as part of the original Supported Work evaluation, performance measures and a separate, small impact study by the Vera Institute suggested the feasibility of this approach for the mentally retarded. As a result, it was decided in 1980 to test on a larger scale the effectiveness of a Supported Work variation for the mentally retarded.

In designing the STETS model, MDRC staff members focused on the basic principles of the Supported Work program -- gradually increased performance expectations, close supervision and peer support. In considering the best way to assist mentally retarded persons through these techniques, MDRC staff were guided by the advice of a number of professionals in the field and by a committee composed of MDRC Board members and others with an interest and expertise in this area. Members of the advisory committee included representatives of the business, labor and academic communities.[12]

The main features of the STETS approach are summarized below.

A. Target Population

MDRC was interested in testing the STETS model for a broad group of the mentally retarded to examine program effectiveness for persons with different degrees of functional ability. A youthful population was chosen because past research had suggested that the employment difficulties of the retarded are most severe for teenagers and young adults (Conley, 1973). At that point in their lives, youths are moving from school to work, and disabled persons become ineligible for a number of support services they had previously received. Youths eligible for STETS were thus applicants between 18 and 24 years of age, with the primary disability of mental retardation, generally in the moderate, mild or lower borderline ranges.[13] Moreover, they were persons with very limited employment experience. (Eligibility criteria are discussed in more detail in Chapter II.) Additionally, the sites were discouraged from screening program applicants on the basis of judgments about the applicants' likelihood of success in the program. Few precedents for making such judgments exist, and it was hoped that the STETS research would provide some lessons on precisely this issue.

B. Program Stages

The program was structured into three sequential phases.

Phase 1: Assessment and Work Readiness Training. Phase 1 of the program, limited to 500 hours of paid employment, combined training and support services in a low-stress environment to begin developing in participants the basic work habits, skills and attitudes needed for their placement into more demanding work settings. This preliminary stage could take place in both sheltered and non-sheltered work settings, but in all cases, Phase 1 participant wages were fully paid by the program.

Phase 1 enabled program operators to assess the abilities and interests of retarded workers, a process considered essential for identifying needed support and training services. It also assisted staff in their efforts to place participants into appropriate jobs in subsequent phases of the program. Participants were to be engaged in at least 20 hours of weekly productive work, with additional time spent in other activities contributing to the development of the behavior and knowledge required by Phase 2 positions.

Phase 2: Transitional Jobs. At all sites, Phase 2 was essentially a period of "on-the-job" training in local firms and agencies. During this stage, participants were placed into non-sheltered positions where the stress and responsibility were to approach the level found in competitive jobs. Placements were emphasized that would lead to regular employment, and participants were to work at least 30 hours per week. Wages were paid by either the program or employers, and in some cases, by a combination of the two. The STETS program supplied counseling and other support services, and assisted the line supervisors at the host company in training and monitoring.

Because STETS was to provide a relatively quick transition to employment, MDRC guidelines limited paid participation to 12 months during Phases 1 and 2 combined. To allow for periods of inactivity caused by health, personal or other problems, participation could span a 15-month calendar period.

Phase 3: Post-Placement Support Services. The third and final stage was to begin after participants had secured regular employment. According to MDRC guidelines, Phase 3 started when each of the following conditions was met:

1) The employer was not receiving a financial subsidy from the program;
2) The program had substantially reduced counseling and other services to both participant and employer; and
3) The participant was considered by the staff and the employer to be a regular member of the workforce, rather than a trainee.

To ensure an orderly transition to work, the program provided up to six months of post-placement support services, tracked the progress of participants, and, if necessary, developed linkages with other local service agencies.

IV. The STETS Sites

As managing agent for the demonstration, MDRC selected local program operators to implement STETS keeping certain research considerations in mind. Diverse geographic locations, as well as varied organizational structures and methods of operation at the local level, were all needed to study program feasibility in different settings. The five organizations chosen included a sheltered workshop in Cincinnati, an "affirmative industry" (which resembles a sheltered workshop) in St. Paul, a state agency in Tucson, and two nonprofit training programs, one in New York and the other in Los Angeles. Each site was to serve 40 to 55 participants at any one time, a relatively high slot level for programs working with this population.

Another important criterion was the capacity of each sponsoring agency to obtain local funding to support a large portion of the local operating costs. This factor was considered necessary as a measure of commitment to STETS, both by the local organization and the community, since local funding would eventually be needed to support STETS at the demonstration's conclusion. Sites were, in fact, able to generate over half of their revenues from local sources.

The five participating organizations are briefly described below.

A. Job Path (New York, New York).

STETS in New York was the only site sponsored by an organization experienced in transitional employment programs for this population. Job Path is operated by the Vera Institute of Justice, a private nonprofit corporation established in 1961 to promote fairness and efficiency in the criminal justice system. Vera later expanded its activities to training and social services for a variety of disadvantaged groups. It pioneered in providing Supported Work for hard-to-employ populations, and in 1978 began Job Path as a Supported Work program for the mentally retarded.

While Job Path and STETS both use similar techniques, there are some distinctions. Job Path serves mentally retarded persons of all ages (the average participant is 28 years old), while STETS concentrated on 18- to

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24-year-olds, bringing an increased emphasis on a youthful population to the organization. Job Path also differs from STETS in the length of time participants are allowed to spend in each program phase.

B. STAR Center (Cincinnati, Ohio).

STAR Center (an acronym for Services, Training and Rehabilitation) is the largest sheltered workshop in Cincinnati. It was established in 1972 under grants from the Ohio Rehabilitation Services Commission and the Hamilton County Council for Retarded Citizens, Inc. In 1976, STAR Center became a division of the Workshops for Retarded Citizens, Inc., which is also the parent organization for a job placement service for the disabled, known as the Joy Center.

STAR provides vocational evaluation, skills and job-readiness training and sheltered employment for disabled persons, with a focus on the mentally retarded and emotionally disturbed. In recent years, STAR has participated in a Projects With Industry program, making use of training positions in Cincinnati's largest hospital. Although STAR had previously attempted to prepare its clients for unsheltered positions, the emphasis placed on achieving this goal was increased considerably in the STETS program.

C. Minnesota Diversified Industries (St. Paul, Minnesota).

Minnesota Diversified Industries (MDI) is a private, nonprofit corporation, describing itself as an "affirmative industry." It has provided employment and training to mentally retarded workers since 1964 in its St. Paul plant, which has 130,000 square feet of manufacturing and warehousing space. When STETS began, MDI employed over 300 workers (most, but not all, of whom were disabled) in mainly light manufacturing, assembly, packaging and similar jobs under subcontract from several companies in the Twin

Cities area.

While its facility resembles a sheltered workshop in some respects, MDI appears to emphasize more sophisticated production techniques than are typically found in workshops. Before its association with STETS, MDI had experimented with a few smaller-scale efforts to place retarded workers into unsubsidized jobs with local firms and agencies.

D. Department of Economic Security, Division of Developmental Disabilities (Tucson, Arizona).

The only STETS project operated by a government agency was sponsored by the Arizona Department of Economic Security's Division of Developmental Disabilities (DDD). This agency offers a variety of residential, vocational and support services to developmentally disabled individuals of all ages. Many of its clients receive employment and training in a range of settings, including work activity centers, sheltered workshops and, increasingly, competitive employment.

DDD does not itself offer training services, but typically coordinates services provided by other organizations and refers clients to them. Developmentally disabled individuals are assigned to a DDD "case manager," who prepares an individual development plan, specifying the client's needs and goals, and strategies for achieving them. In STETS, DDD would assume more direct responsibility for providing employment and training services to its clients.

E. California Institute on Human Services and ADEPT (Los Angeles, California)

The Los Angeles STETS program was run cooperatively by the California Institute on Human Services (CIHS) and ADEPT (Assisting the Disabled with Employment, Placement and Training). CIHS is an affiliate of Sonoma State

University, which administers a variety of research and development projects throughout California. In the past few years, the organization has worked closely with state agencies, such as the California Department of Rehabilitation, on projects serving the mentally retarded and other disabled individuals.

ADEPT is a nonprofit agency which was formed in 1974 by a group of individuals concerned about the underemployment of the disabled. It offers a variety of employment services to disabled workers, although most of its efforts to date have involved job placement for physically handicapped persons. CIHS was to exercise administrative control over the Los Angeles STETS project, while ADEPT would provide the direct services to participants.

The STETS program in Los Angeles operated in two separate ADEPT offices, the main one located in Panoroma City in the southern part of the San Fernando Valley. A satellite office was housed in an ADEPT branch in downtown Los Angeles.

V. The Research Plan for STETS

As a demonstration project, STETS incorporates a comprehensive research plan to evaluate the implementation experiences of the local sites, the impact of the program on enrollees, and the program's benefits and costs. The implementation study, the subject of this report, has been conducted by MDRC. The impact and benefit-cost analyses are being carried out by Mathematica Policy Research (MPR) under MDRC's supervision.

A. The Impact Analysis

The impact analysis represents an unusual opportunity to make a substantial contribution to the limited body of research on the effectiveness of employment programs for retarded persons. Unlike most previous studies, the analysis uses an experimental design: 496 STETS applicants were randomly assigned either to an experimental group, in which members were allowed to enroll in the program, or to a control group, where members could not enroll but could participate in other programs available to them in the community.

Data for the impact study have been collected primarily through in-person interviews with members of both the experimental and control groups, and with their parents, guardians or other close acquaintances (who served as proxies when more complete or accurate information was needed). The interviews were administered at four points: at baseline (shortly after random assignment) and at six months (for two-thirds of the sample), 15 months and 22 months after the baseline interview.[14]

The impact evaluation will focus on four broad sets of outcomes: labor market success, the use of alternative training and education services, the use of transfer programs and changes in life-styles. Labor market outcomes include such factors as employment, earnings, labor force participation, job search activity and employment stability. Alternative service outcomes include participation in various educational programs (e.g., regular high school, special education, work/study or vocational programs), sheltered workshops and other employment programs. Transfer program outcomes include the receipt of SSI, AFDC and Medicaid benefits. Life-style outcomes cover three aspects of community and social adjustment: living arrangements, social skills (including the handling of money, budgeting skills and the ability to travel) and family formation.

B. Benefit-Cost Analysis

The benefit-cost analysis will explore how the economic benefits of STETS compare to the costs incurred in the program's operation. Building on the design of the Supported Work benefit-cost analysis of other disadvantaged populations, the research will derive a measure of the program's "net present value;" that is, it compares the present value of STETS benefits with program costs, and it does so from the perspectives of society in general, taxpayers and the participants themselves.

One advantage of this study over previous analyses of employment programs for the disabled is the use of a control group, which should provide more accurate data on program effects. Moreover, because both samples are followed for a considerable period of time, program benefits can be assessed over a longer term than is usually available.

C. Implementation Analysis

The implementation analysis describes program operations at the local level and examines the factors influencing the sites' ability to recruit, train and place participants into competitive jobs. While MDRC's guidelines outlined the basic practices of the program, the sites were given wide discretion in translating these guidelines into an operating program. The implementation analysis will assess the extent to which these guidelines were followed, and whether or not they were feasible, especially at the relatively high slot capacity at which each site was expected to operate. The implementation discussion will also help to interpret the findings of the impact and benefit-cost analyses.

The implementation study seeks in addition to elucidate the operational advantages and disadvantages associated with alternative recruitment, training and job development strategies, as well as the implications of various local conditions at the sites. This analysis will be particularly important to any future efforts to replicate STETS.

A variety of data sources were used in this analysis. Over the course of the demonstration, qualitative data were collected by MDRC researchers in site visits in which they interviewed STETS staff and members of the organizations sponsoring the program, as well as a number of referral agents and employers. Ongoing program activities, such as worksite training and group counseling sessions, were also observed. In addition, MDRC field representatives prepared progress reports after monthly site visits and reported on specific research issues.

A major source of quantitative data in this report is the STETS Management Information System (MIS). Through a set of standardized forms completed at each site and regularly submitted to MDRC, demographic data were compiled on all enrollees (and control group members) at intake, the services received were recorded, and each person's progress through the program was tracked. Information was also gathered on the characteristics of the worksites and the jobs into which participants were placed, both as trainees and regular workers.

Additional quantitative data on employers were available from two special studies. In the job development contact study, program staff members kept a record, for a limited period, of their contacts with employers and the results of each contact. This study clarified the nature of the job development process and the level of effort required to place participants into jobs. The second study, a survey of Phase 2 employers, was an attempt to learn why employers had agreed to sponsor participants and how they assessed both the STETS program and participants' performance.

VI. The Context of the Demonstration

Both the economic and funding contexts in which the program operated have implications for the lessons to be drawn from the STETS demonstration. From an economic perspective, STETS was implemented during a very severe national recession, which impeded job development efforts. A scarcity of jobs, in turn, adversely affected other parts of the program, as did the persistent funding uncertainties, which disrupted planning, lowered staff morale and limited the life-span of the demonstration. Indeed, not long after the sites had begun to solve start-up problems, they were told to plan for the program's phasedown. Consequently, there was relatively little time in which to refine training and job development techniques or to build a positive reputation with employers, a prerequisite to successful job development.

One implication of the shortened time-span should be considered in terms of the research results: the STETS evaluation may not reflect the ultimate potential of the program. It is possible that the implementation and impact studies may underestimate STETS accomplishments that might have emerged had the model been operated under more favorable conditions and allowed to mature. Yet, whatever the true potential, these findings and the forthcoming impact and benefit-cost analyses should provide useful information on this approach.

CHAPTER II

RECRUITMENT, REFERRAL AND INTAKE

The first task facing STETS operators was to locate and enroll in sufficient numbers the types of individuals the program was designed to serve. At each site, staff had to establish referral linkages with other agencies in contact with members of the eligible population.

This task was a challenge for two reasons. STETS was a new program, and staff at potential referral agencies had to be convinced that this program could help mentally retarded individuals. Moreover, the STETS research procedures were new requirements for both clients and referral agents and might possibly discourage referrals.

This chapter describes first the eligibility criteria and recruitment goals of the demonstration. It then reviews the recruitment strategies and the referral and intake process, paying particular attention to the kinds of individuals enrolled in STETS.

I. Eligibility Criteria and Recruitment Goals

According to the demonstration's guidelines, individuals were considered eligible for the program if they met the following criteria:

- Age between 18 and 24, inclusive. As noted earlier, this age group was chosen in order to serve young adults who were preparing for or undergoing the transition from school to work or other activities.

- Mental retardation in the moderate to lower borderline range. For referral sources using IQ scores, a range was selected between 40 and 80; other verifiable determinants of mental retardation were also acceptable.
- Unsubsidized full-time employment experience of less than six consecutive months in the two years preceding intake, and no employment of more than 10 hours a week in an unsubsidized job at the time of intake. This criterion was established to limit enrollment to persons who would be likely to need the intensive employment services envisioned in the model.
- No secondary disability that, in the judgment of the referral agency or program operator, would make on-the-job training for competitive employment impractical. While the demonstration was designed to test the program's effectiveness for a disabled population, it was recognized that, in some cases, there would be secondary disabilities of such severity that individuals could not be expected to work independently in a regular job. The sites were encouraged, however, to apply this standard only in exceptional cases.

Local agencies in contact with the STETS target population were instructed to use these criteria in making referrals. STETS staff later verified eligibility in interviews with applicants, and at that point, randomly assigned the eligible applicants.

New York, St. Paul and Tucson were to serve 50 participants at any one time, while Cincinnati and Los Angeles were to maintain slot levels of 40 and 55 clients, respectively. Site size was dictated in part by the sample needs of the impact analysis, but planners also wanted to test the feasibility of the program on a reasonably large scale. Moreover, because half of the applicants were to be assigned to the control group, the sites had to recruit twice as many individuals as the slot levels specified, which increased the challenge of recruiting a sufficient number of applicants.

Another requirement related to the enrollees' level of retardation: MDRC encouraged sites to recruit half of their total number from the 40 to 60 IQ range in order to study the suitability of STETS for a diverse population. This criterion also guarded against a tendency of referral sources to favor higher-functioning clients.

II. Recruitment and Intake

A. Recruitment Strategies

Each site was given wide latitude in devising strategies to meet its recruitment goals. However, the similarity of approaches among sites is more striking than the differences. For example, all sites informed local agencies about STETS through mass mailings, but tended to emphasize personal presentations, usually given by the site directors. In these presentations, directors highlighted the positive reputations of their sponsoring agencies in working with handicapped persons. Larger sites also used radio and television spots. Only two of the sites, Los Angeles and New York, retained specialized recruitment staff to assist in the in-person presentation of STETS. In Los Angeles, a consultant was hired for three months when referrals were slow, and in New York, a staff person who handled public relations for the sponsoring agency assisted in the recruitment drive.

B. Screening Prior to Referral

The four eligibility criteria described earlier were the primary guidelines used by referral agencies. Interviews indicated that some referral agencies did little or no further screening, but in other cases, more subjective criteria came into play. For example, certain agents referred only clients who had demonstrated a readiness and motivation to work through their past behavior and performance in school or training programs. Others gave priority to their higher-functioning clients, probably to see how well these persons fared before taking a chance on lower-functioning individuals. Particularly in New York, agents were guided by the STETS staff in referring the kinds of individuals they believed the program would be most likely to help. However, while it seems clear that some screening took place, it is not possible to know how widespread the practice was.

It is also important to note that, in a minority of cases, eligible clients or their parents would not consent to a STETS referral when it was offered. While the reasons were not always clear, clients or parents were sometimes reluctant to give up places in other programs, such as sheltered workshops, when re-entry to those programs was not assured if they did not do well in STETS. Other clients or parents may have feared the loss of SSI or SSDI benefits, or have been concerned about re-establishing eligibility in the event of a job problem. It is not known from the data precisely how many clients or parents were affected by these or other factors, but referral agents and staff members interviewed indicated that few such cases were identified by them.

C. Screening After Referral

After referral, an applicant was interviewed by a STETS staff member whose primary responsibilities were to verify eligibility, explain the demonstration's experimental design, and obtain the applicant's informed consent before random assignment. Typically, these intake interviews with applicants were scheduled with either a parent or the referral counselor, or both, in attendance. This was considered important to avoid possible confusion over random assignment and to provide general support to the applicant. In some instances, however, applicants came alone. While this was generally acceptable, referral sources were told that applicants who might be unable to give informed consent should always be accompanied by a person who could consent on their behalf.

MDRC interviews with STETS staff and direct observations of the intake process indicate that most sites did little in the way of screening applicants beyond re-establishing the fact that they met the four basic eligibility criteria. File searches and information from the site reports to MDRC show that the sites generally screened out only between 2 and 6 percent of their applicants for reasons other than inability to meet the objective criteria.

All sites mentioned physical disabilities (such as deafness), uncontrolled seizures and mental illness as secondary disabilities which, in their judgment, might preclude competitive employment. Most sites, however, were willing to accept a fairly wide range of applicants. For example, Los Angeles relied almost completely on the judgment of referral sources, and made no further assessment. Tucson was relatively careful to discuss the severity of secondary disabilities with referral counselors, but did not probe further. Cincinnati and St. Paul rejected very few applicants (although they did try to uncover serious illnesses not noted by the referral sources).

New York was the exception; Job Path staff screened extensively on a number of criteria, turning down at least 20 percent of referred applicants. Program reports, observations and staff interviews suggest that most persons excluded from Job Path for reasons other than inability to meet objective criteria had emotional problems, lacked motivation, or were inflexible in the kinds of training positions they were willing to accept. Job Path staff emphasized, however, that while they relied on their past experience with this group, it was quite often impossible to detect problems at intake.

D. Random Assignment

Random assignment and informed consent, the final stage of the intake process, were relatively new procedures for the sponsoring organizations. To ensure consistency, accuracy and sensitivity, all explanations of random assignment were based on material provided by MDRC, and a single staff person was given responsibility for the procedure.

After the program had been explained and eligibility determined, the intake worker discussed, in simple terms, the reason for random assignment and the meaning of being selected for the experimental or control group. The risks associated with holding a job, such as the potential reduction or loss of benefits, were pointed out carefully. Applicants were also told that experimentals and controls would be interviewed, but that the interviews were confidential and could be refused, either in whole or in part, at any time. The intake person repeatedly asked if the applicant had questions, and explanations continued until the applicant and interviewer felt satisfied. At that point, the intake worker telephoned the research firm to find out the applicant's assignment.

Although it was sometimes difficult to gauge applicants' reaction to this process, MDRC interviews and observations suggest that most applicants assigned to control status were understandably disappointed, but were able to comprehend the neutral nature of the procedure; they did not appear to blame themselves. All control group members were sent back to their referral agencies, where alternative services could be sought.

III. Number and Characteristics of STETS Enrollees

Random assignment was phased in gradually, with the first site (New York) beginning in October 1981. The process was under way in all sites by early 1982 and was completed by December of that year. While the original research design had called for a sample of 500 each of experimentals and controls, funding constraints caused a reduction in numbers so that, during the relatively short period of random assignment, 251 individuals were assigned to the program, and 245 to the control group. An additional 33 persons, who had enrolled in the program before random assignment, will not be included in the impact sample, but are considered in this implementation analysis. The fact that 529 persons entered the program or the control group indicated that sites were able to recruit a substantial number of clients during a relatively short period.

Table 2.1 shows selected demographic characteristics of the enrollees at the time of program entry. The population was a young one, averaging 20

TABLE 2.1

DEMOGRAPHIC CHARACTERISTICS OF STETS ENROLLEES
AT TIME OF ENROLLMENT, BY PROGRAM SITE

Characteristic	Los Angeles	New York	Cincinnati	St. Paul	Tucson	All Sites
Age (%)						
18-21 Years	75.9	62.5	72.1	65.2	60.4	67.4
22-24 Years	24.1	37.5	27.9	34.8	39.6	32.6
Average Age (in Years)	20	20	20	21	20	20
Retardation Range (%)						
Moderate	8.6	4.7	17.7	13.3	20.8	12.8
Mild	48.3	39.1	56.5	55.6	50.9	49.6
Borderline	43.1	56.3	25.8	31.1	28.3	37.6
Average Full-Scale IQ (Score)	65	68	61	63	61	64
Secondary Handicaps (%)[a]						
Any	31.0	41.5	37.1	37.0	60.4	41.2
Visual	6.9	7.7	4.8	0.0	11.3	6.3
Seizure Disorder	1.7	6.2	1.6	15.2	13.2	7.0
Cerebral Palsy	6.9	7.7	0.0	2.2	3.8	4.2
Mobility Limitation	3.4	0.0	3.2	0.0	11.3	3.5
Emotional	0.0	6.2	6.5	0.0	9.4	4.6
Learning Disability	8.6	6.2	1.6	10.9	7.5	6.7
Speech/Language Disability	8.6	0.0	9.7	10.9	11.3	7.7
Other[b]	10.3	20.0	22.6	13.0	13.2	16.9
Sex (%)						
Male	60.3	57.8	74.2	56.5	47.2	59.7
Female	39.7	42.2	25.8	43.5	52.8	40.3
Ethnicity (%)						
White	46.6	31.3	45.2	93.5	73.6	55.5
Black	24.1	50.0	54.8	6.5	5.7	30.4
Hispanic	22.4	15.6	0.0	0.0	20.8	12.0
Other	6.9	3.1	0.0	0.0	0.0	2.1
Current Living Arrangements (%)						
Parents/Relatives	77.6	87.7	88.7	50.0	67.9	76.1
Independent	13.8	3.1	1.6	15.2	11.3	8.5
Group Home	5.2	4.6	1.6	28.3	3.8	7.7
Other	3.4	3.1	8.1	6.5	16.9	7.4

(continued)

TABLE 2.1 (continued)

Characteristic	Los Angeles	New York	Cincinnati	St. Paul	Tucson	All Sites
Benefits Received (%)[c]						
AFDC	0.0	4.6	1.6	2.2	0.0	1.8
SSI	24.1	21.5	27.4	13.0	41.5	25.7
SSDI	6.9	0.0	3.2	8.7	11.3	5.6
General Asst.	1.7	3.1	4.8	13.0	0.0	4.2
Food Stamps	1.7	0.0	4.8	4.3	13.2	4.6
Medicaid	15.5	27.7	4.8	47.8	3.8	19.0
Schooling (Ever Attended Since Age 14) (%)[a]						
Mainstream (Includes Vocational)	77.6	55.4	79.0	69.6	54.7	67.3
Special (Only Handicapped)	20.7	46.2	35.5	41.3	41.5	37.0
Curriculum (Ever Followed Since Age 14) (%)[a]						
Regular Curriculum	15.5	9.2	11.3	10.9	5.7	10.6
Special Curriculum	79.3	81.5	100.0	82.6	86.3	86.3
Employment & Training Experience (%)[a]						
Mainstream Training	13.8	1.5	6.5	21.7	3.8	8.8
Special Training	12.1	33.8	4.8	65.2	26.4	26.8
Unsubsidized Employment - Full Time	12.1	12.3	16.1	17.4	11.3	13.7
Unsubsidized Employment - Part-Time	25.9	6.2	24.2	41.3	9.4	20.4
Subsidized Employment	44.8	43.1	29.0	17.4	11.3	30.3
Sheltered Work	6.9	16.9	3.2	19.6	26.4	14.1
Volunteer Work	15.5	10.8	3.2	2.2	9.4	8.5
Number of Enrollees	58	65	62	46	53	284

SOURCE: MDRC tabulations of Application/Enrollment Forms in the STETS Information System.

NOTES: Percentage distributions may not add exactly to 100.0 because of rounding.

[a] More than one category may apply to an enrollee.

[b] This category includes hearing and general health impairment.

[c] This reflects benefits received by the enrollee and does not necessarily include benefits received by someone else in the respondent's household.

years of age (meaning that this group was subject to the employment difficulties found among many young people). Almost 60 percent of enrollees were male, a proportion similar to that in the general population of persons labeled retarded (Ingalls, 1978). About 56 percent of enrollees were white, 30 percent black and 12 percent Hispanic. With the exception of Cincinnati, and to a lesser degree New York, the ethnic distribution within local programs reflected the ethnic makeup of each site's community (U.S. Department of Commerce, 1980).

Overall, 13 percent of the enrollees were classified as moderately retarded, about 50 percent fell into the mild range, and 38 percent were borderline. The program thus fell somewhat short of its goal in recruiting a substantial proportion of moderately retarded individuals. In retrospect, this is not surprising; only 6 percent of all mentally retarded persons fall into this category (Tarjan et al., 1973). Concern was also expressed by referral agencies and parents about this group's prospects for competitive employment. As a new program, STETS had no proven track record with which to respond.

Tucson and Cincinnati were most successful in recruiting moderately retarded participants, probably because of the close associations of these sites with other agencies serving lower-functioning individuals. In Tucson, the STETS parent organization, the State Division of Developmental Disabilities, referred almost half of the program's enrollees in that range. In Cincinnati, a special county-based system serving individuals with IQs of 55 and below referred youths to STETS through the vocational rehabilitation system.

Secondary handicaps were identifiable at intake for 41 percent of enrollees. Since it has been estimated that as many as 50 percent of all retarded children with IQs below 70 have secondary handicaps (Conley, 1973), this percentage is reasonably representative of the eligible population. However, since non-physical secondary handicaps were not always noted by either the referral source or the intake interviewer, the 41 percent figure may understate the actual prevalence of disabilities among enrollees.

The education and employment backgrounds of enrollees suggest other obstacles to future labor market success. From the age of 14, approximately one-third had never attended a regular school (including vocational or trade schools), and 89 percent had never participated in a mainstream, as opposed to a special education, curriculum. Similarly, while 27 percent had had some vocational training (outside of school) in a special training program for disabled persons, a very small group, 9 percent, had participated in a mainstream vocational training program. Moreover, only 14 percent had ever worked in a full-time unsubsidized job while only one-fifth had been employed in a part-time unsubsidized position. As would be expected with a young, handicapped population with little previous employment, over three-quarters of enrollees were living with parents or relatives.

Although STETS imposed no income-related criteria, a number of enrollees did receive benefits, or their families received benefits, from needs-based public assistance programs. As Table 2.1 indicates, 19 percent of the enrollees were receiving Medicaid payments, and some 6 and 26 percent were receiving Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI), respectively, at intake. The Tucson site had the highest proportion of dependent enrollees; 42 percent received SSI benefits. (At that site, recruitment efforts focused on a pool of individuals among whom SSI recipients were heavily represented.)[1]

Since SSI eligibility could be lost after a nine-month "trial work period," recipients who joined STETS risked the loss of rather substantial benefits, particularly since SSI receipt also qualified an individual for Medicaid and, in some cases, Food Stamps. The fact that more than a quarter of the enrollees were receiving SSI suggests that, despite the risk, recipients were not necessarily adverse to employment opportunities. The question of whether these recipients can successfully become self-supporting through an intervention like STETS is one of considerable interest to society, and will be addressed in the impact study. Unfortunately, there are no data on how willing SSI recipients were to enroll in the STETS program initially.

IV. Referral Sources

Table 2.2 shows that state vocational rehabilitation agencies and public schools were the principal referral sources for STETS, followed by state/county agencies for the mentally retarded and sheltered workshops. STETS sponsoring organizations already had referral linkages with vocational rehabilitation agencies, but their linkages with schools were much weaker. The young age criterion for STETS made it necessary for program operators to build this relationship quickly.

Schools generally were enthusiastic about the program, but there was some uncertainty initially about whether they would refer youths under 22 years of age. Under the Education for All Handicapped Children Act, schools are mandated to serve interested handicapped youths until they

TABLE 2.2

PERCENTAGE DISTRIBUTION OF STETS ENROLLEES, BY TYPE OF REFERRAL AGENCY AND PROGRAM SITE

Type of Referral Agency	Los Angeles	New York	Cin-cinnati	St. Paul	Tucson	All Sites
State Vocational Rehabilitation Agency	34.5	16.9	46.8	80.4	7.5	35.6
Public School System	17.2	35.4	51.6	0.0	34.0	29.2
Sheltered Workshops	10.3	26.2	0.0	0.0	20.8	12.0
State/County Agency for Developmentally Disabled	20.7	1.5	1.6	8.7	37.7	13.4
Other[a]	17.2	20.0	0.0	10.9	0.0	9.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of Enrollees	58	65	62	46	53	284

SOURCE: MDRC tabulations of Application/Enrollment Forms in the STETS Information System.

NOTES: Percentage distributions may not add exactly to 100.0 because of rounding.

[a] Includes CETA and various private non-profit organizations serving the handicapped.

reach that age. Only in St. Paul, however, did youths more typically enter the demonstration after having finished school. In fact, in that site, an unusual recruitment pattern was observed. Although it appears in Table 2.2 that no school referrals were made, vocational rehabilitation counselors outstationed in the schools referred a number of students to STETS.

While sheltered workshops were, like the rehabilitation agencies, a traditional referral source for the sites, the proportion of referrals from these agencies was not especially high. One possible explanation is that they needed good workers to maintain their own productivity levels, but the more critical factor was probably age. It was reported that most workshop employees were too old for STETS.

State or county mental retardation/developmental disability (MR/DD) agencies were particularly important referral sources in Tucson and Los Angeles, where 38 and 21 percent of enrollees, respectively, came from such agencies. These sources were also important in Cincinnati (although Table 2.2 does not reflect this because referrals from those sources usually were funneled through the vocational rehabilitation system). As mentioned earlier, Cincinnati made a special effort to involve a county-based MR/DD system that provided school, residential and work activity services to individuals with IQs below 55. Although a linkage had long existed between this system and the STAR Center (an administrator sat on the STAR Center board of directors), referrals were few because of STAR's relatively high productivity standards. The STETS outreach to this and other MR/DD agencies represented a major change in referral relationships for the STAR Center.

V. Meeting Enrollment Goals

While the sites overall were able to enroll a sizable, diverse and disadvantaged group, recruitment was not without problems, and the sites did not reach their contracted slot levels. At four of the five sites, the average enrollment ranged from 35 to 43 individuals during the most stable period of operations. St. Paul averaged only 30 enrollees during this study period. Two main problems were funding constraints and the difficulties of job development. In several of the sites, the pace of recruitment efforts slackened during the spring of 1982, when the long-term funding outlook was unclear and job development was proceeding slowly. In some cases, random assignment and the paperwork requirements of the demonstration discouraged referral agents, particularly at the beginning of the demonstration. In all instances, it was difficult to restart recruitment efforts quickly when more funding became available.

Another problem, particularly in New York, Cincinnati and St. Paul, was caused by the funding and staff reductions facing vocational rehabilitation agencies during the demonstration period. These limited the ability of referral agencies to process and refer appropriate clients to STETS. St. Paul had additional problems, including poor outreach to facilities serving the lower-functioning, the apparent reluctance of neighboring counties to refer to programs outside their areas, and, as previously mentioned, the referral policy of the schools. The most important factor, however, was that site's slow pace of job development. In the words of the St. Paul project director, "If you can get the jobs, you can get the people."

Despite these difficulties, STETS -- and the idea of competitive employment -- held considerable appeal for referral agents, as well as for retarded persons and their parents. At the very least, this is reflected in the fact that well over 500 applications were made to the program during its short period of recruitment.

CHAPTER III

TRAINING AND WORK EXPERIENCE

For each phase of STETS, MDRC issued a broad set of guidelines for the sites to follow in operating the program. However, within those guidelines the sites were given much discretion to determine the specific content of training procedures and work experience. To understand STETS, it is thus necessary to understand how these activities were actually implemented, and some of the advantages and disadvantages of the alternative approaches which were tried.

This chapter opens with an examination of the nature of the challenge facing program operators as they began their training efforts. It specifies the typical difficulties that participants experienced as they performed their jobs -- difficulties that the operators viewed as obstacles to permanent competitive employment. (For a further discussion of participants' work performance, see Chapter V.) The chapter then covers the three phases of STETS in some detail, presenting operational techniques and lessons which may be helpful in future replications of the program.

I. Deficiencies in Participants' Work Habits and Skills

Given the nature of the target population, it is not surprising that most STETS participants experienced some difficulties at work. These included deficiencies in work habits (the generic behavior necessary for keeping almost any type of job), as well as in work skills (skills associated with a particular job). In each of these two areas, staff interviews suggest that the most common types of problems fell into several major categories, which are discussed in the following pages. It is impossible to specify from the data how many participants had these problems. It is clear, however, that most participants had one or some of these difficulties, but not all. At the same time, many participants were able to overcome their limitations and eventually enter unsubsidized jobs.

A. Work Habits

1. Attendance and Punctuality. Irregular daily attendance (including lateness to work and in returning from breaks) was perhaps the most prevalent problem, particularly during Phase 1. This could be caused by a number of factors: a low commitment to work, a tendency to oversleep, misjudging travel time, or difficulties in using public transportation. Sometimes participants just did not understand the appropriate reasons for missing work. As one counselor said of a participant:

> When he first started the program, he would keep taking days off whenever he wasn't feeling well. I tried to help him understand that he still has to go to work, even if he's not feeling great.

Counselors also had to encourage many participants to remember to call their supervisors if they were going to be late or absent.

2. Interaction Skills. Some participants had problems getting along with their supervisors and co-workers, and a difficulty common to many of them was an unwillingness to accept criticism. At one site, a supervisor complained that a participant threatened to quit whenever he was told that his performance was not up to standard. Some participants argued with supervisors and co-workers, or were disruptive in other ways.

3. Concentration and Endurance. A number of participants had short attention spans and were easily distracted, problems which affected

both the quantity and quality of their production. Related difficulties were a lack of stamina or tolerance for a full day's work or accepting the importance of a consistent working routine.

4. Completing, Initiating and Changing Tasks. Participants were often not thorough in completing tasks or had difficulty switching tasks. Others would simply stop working when they had finished their assignments, rather than telling their supervisors they were available for other tasks. or finding them on their own. A Phase 2 employer offered these comments about one participant's chances for becoming competitively employed:

> He would have to become more enthusiastic about finding out what needs to be done. In hiring, I look for the person who is finding things that need to be done, so they are creating their own work and understanding their responsibility. I think he could grow into that -- instead of asking what needs to be cleaned, he'd go out and see what needs to be cleaned, and clean it.

5. Grooming and Hygiene. Not all participants knew how to dress for work or understood the importance of keeping themselves clean, combing their hair and maintaining proper hygiene.

Overall, STETS staff members postulated that many of these poor work habits were more manifestations of general immaturity than of retardation, and some pointed out that the behavior problems were most pronounced among younger participants. In addition to immaturity (or perhaps related to it), staff members identified two other important sources of poor work habits: lack of motivation and an insufficiently supportive home environment. In several sites, particularly New York and Cincinnati, staff members found that poor work habits were common to participants whom they considered both higher-functioning and "street-wise." Some may have been mislabeled as retarded by school systems, and they understandably resented being viewed as such.

B. Inadequate Work Skills

Staff members believed that the poor work habits of their clients usually presented greater obstacles to competitive employment than their limited work skills. Still, participants often did not possess certain basic competencies that are critical for most entry-level jobs.

Perhaps the most prevalent of these deficiencies was a lack of speed. Staff members reported that some participants simply did not work fast enough for many competitive jobs. One Phase 2 employer described in this way the activities of a participant who eventually had to be terminated from his position at a bakery:

> His job is primarily cleaning pots and pans, cleaning the floors, the machinery, and equipment. Actually, he should be able eventually to help us with things like icing the cookies -- but frankly, he's so slow he spends most of his time on pots and pans. He spends eight hours on a job that should take three hours. For me, it's not economical.

Other participants had poor reading, writing and math skills; difficulty understanding or remembering how to do some of the assigned tasks; forgetting to do all of the tasks; and forgetting to vary their work according to a set schedule.[1] For example, as one counselor noted, some participants in janitorial positions had trouble remembering "that you clean something on Wednesdays and Fridays only, and that you clean something else on other days."

All these deficiencies were the focus of staff attention during Phase 1 and often later in the training process.[2] Strategies for addressing those problems are described next.

II. Phase 1

Fundamental to the STETS model was the concept of "graduated stress," where the job tasks and responsibilities imposed on trainees are at first kept low and then raised gradually to a competitive level. This process began in Phase 1 when individuals were assigned to short-term, minimum-stress jobs intended to introduce them to the norms of the working world and to help them develop the habits and attitudes required for successful employment. Also, during this period, staff members conducted an initial assessment of the kinds of training and support services each participant needed. In order to ensure that clients were moved expeditiously into more demanding Phase 2 training positions, Phase 1 employment was limited to 500 hours. However, participants had to work at least 20 hours per week during this time.

Phase 1 made use of two basic approaches, primarily because training was offered in two different types of settings. The first approach (used in Cincinnati, St. Paul and Tucson) allowed for assessment and training of participants in a sheltered setting. The second (used in New York and Los Angeles) provided these services to participants who had been placed in real work settings, usually in public agencies or nonprofit organizations. In the latter two sites, full subsidies were available for Phase 1 work, primarily through CETA. Additionally, subsidies in Los Angeles were available through a state youth program. As the following discussion suggests, both the sheltered and non-sheltered approaches had their advantages and drawbacks.

A. Phase 1 in Non-Sheltered Worksites

1. New York. While both the New York and Los Angeles sites used

the non-sheltered model, assessment and training were much more structured activities in New York. There, assessment began at the first intake meeting, during which counselors observed applicants and asked them about work that interested them, and some of their past experiences. Subsequently, several staff members -- the job developers, program director and counselors[3] -- decided jointly on suitable worksites. To the extent possible, staff tried to arrange jobs according to participants' interests, but the range of available Phase 1 jobs was confined mostly to messenger, food-service, janitorial and light clerical positions. Table 3.1 presents the distribution of these Phase 1 jobs.

Within these constraints, other factors in matching participants to jobs included: their willingness to work in certain positions, their ability to do the work (for example, a person who could not read well was not assigned to a clerical position); the suitability of the supervisor and the setting for a given participant's personality (for instance, more supportive supervisors were matched to participants who required greater assistance); and the proximity of the worksite to the participant's home.

Once a participant was placed, the assigned counselor visted the worksite usually twice a week. Depending on the participant's needs, the visit could be 10 minutes or as long as several hours, with the average visit lasting from 20 to 30 minutes. Training and monitoring were the responsibilities of the employers' regular worksite supervisors, many of whom had previously worked with mentally retarded clients of Job Path, the New York site's sponsoring agency. The counselors' work centered more on ensuring that the work experience met the enrollees' needs and that the skills developed could be transferred to the private sector. As one counselor

TABLE 3.1

PERCENTAGE DISTRIBUTION OF TYPE OF FIRST JOB FOR PARTICIPANTS EVER ASSIGNED TO A JOB, BY PHASE AND PROGRAM SITE

Phase and Occupational Category	Los Angeles	New York	Cin- cinnati	St. Paul	Tucson	All Sites
Phase 1						
Clerical and Sales[a]	23.4	58.5	0.0	11.9	2.1	21.0
Service[b]	29.8	41.5	0.0	2.4	4.2	16.8
Agriculture, Fish, Forest	8.5	0.0	0.0	0.0	2.1	1.9
Processing	0.0	0.0	0.0	0.0	4.2	0.8
Machine Trades	2.1	0.0	0.0	76.2	0.0	12.6
Benchwork	14.9	0.0	6.7	0.0	56.3	14.5
Structural Work	14.9	0.0	0.0	2.4	4.2	3.8
Miscellaneous[c]	6.4	0.0	93.3	7.1	27.1	28.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of Participants	47	65	60	42	48	262[d]
Phase 2						
Clerical and Sales[a]	20.6	51.0	5.3	0.0	0.0	19.9
Service[b]	26.5	47.1	65.8	78.9	61.8	53.4
Agriculture, Fish, Forest	11.8	0.0	0.0	0.0	0.0	2.3
Processing	2.9	0.0	5.3	0.0	2.9	2.3
Machine Trades	2.9	0.0	0.0	5.3	8.8	2.8
Benchwork	23.5	0.0	7.9	15.8	14.7	10.8
Structural Work	2.9	2.0	0.0	0.0	0.0	1.1
Miscellaneous[c]	8.8	0.0	15.8	0.0	11.8	7.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of Participants	34	51	38	19	34	176[e]

(continued)

TABLE 3.1 (continued)

SOURCE: MDRC tabulations of Monthly Status Change Forms in the STETS Information System.

NOTES: Occupational categories were derived from groupings of similar jobs, as defined by 1-digit codes from the Dictionary of Occupational Titles, 4th Edition, published by the U.S. Department of Labor, Employment and Training Administration, in 1977.

Percentage distributions may not add exactly to 100.0 because of rounding.

[a] This category includes, but is not limited to, filing clerk, data clerk, mailroom clerk, and messenger.

[b] This category includes, but is not limited to, fast food worker, kitchen worker, housekeeper, porter, and janitor.

[c] This category primarily includes packaging jobs.

[d] Excludes one participant in Los Angeles and two in Tucson for whom data are missing.

[e] Excludes three participants in Los Angeles, one in New York, two in Cincinnati, three in St. Paul and two in Tucson for whom data are missing.

explained:

> You can't just leave it to the supervisor. You have to make sure what the trainees are learning. We try to find out what the private sector employers will expect, and make sure that the public sector supervisor is providing the appropriate training.

Counselors also tried to stay informed about whether supervisors were holding participants to realistic performance standards, which could as easily be too low as too high:

> Sometimes they may not have high enough standards. We have to make sure the trainees are learning what they are supposed to be learning. Sometimes supervisors feel overprotective of trainees and don't want to tell the counselors about the trainees' problems. We have to urge the supervisors to share the problems the person is having so we can help them work on those problems.

Added another counselor:

> At some sites the supervisors feel sorry for trainees and "baby" them. They say, "We don't want to push them too hard -- we'll never have the problems they have." But this doesn't help the trainee.

Counselors also helped out with the actual task instruction. Often, for example, when a participant began a new job, the counselor also performed the tasks in order to understand job expectations and to communicate these clearly to the participant. One counselor described this approach:

> I watch them work. Like Bill[4] -- I watched him wash tables. I saw he wasn't using much elbow grease. So I took the sponge and showed him how to do it. With Edward, I helped to show him how to file faster. I may go with the messengers on their runs to show them how they could do their runs more efficiently. I work alongside them because we can't just rely on counseling sessions to find out what work problems they have. They may not say anything about them. Even in follow-up, I'll work alongside the person, but it happens more during Phase 1.

Another counselor described how he assisted two participants who were mopping a hospital floor:

> They were told to do one side first and then the next. They didn't understand this and did the whole floor. So I took the mop and showed them how to do it and where to put the sign (indicating that the floor was wet).

Intervention was sometimes even more important when the problem was not skills, but work habits:

> If someone's hygiene and grooming are bad, the supervisor will tell me, and I'll have to deal with that. If there's something he feels funny about dealing with, that's where I pick up the slack -- things that they may not usually have to deal with for other workers.

The counselors tried to talk to the supervisors whenever they visited the worksites -- even if only briefly. They also endeavored to meet with them biweekly to go into more depth about participants' activities and performance.

In addition to introducing the work world, Phase 1 was a time for early and careful assessment of work problems and training needs. Assessment was an ongoing process in New York, based on worksite observations or feedback from supervisors. Approximately six weeks after a youth had started Phase 1, counselors summarized the performance assessment in a "Habilitation Plan," which outlined the problems the participant needed to address and defined how the program would attempt to help. The plan was reviewed and, if necessary, revised every 90 days.

Formal testing, which was administered in the Cincinnati and St. Paul sites, was not part of New York's assessment process. As the project director explained:

> Assessment is done through actually seeing the person in a real work situation, not a simulated situation. Work samples may tell about dexterity, but not other things. A key advantage of our approach is that you can see the kind of ambiance a person works well in, what kind of environment a person would be suitable for, and what the person's skills

> are. This approach, compared to the packaged testing schemes, brings the assessor closer to the person being assessed. You get richer and more detailed information on people.

2. Los Angeles. For participants in the Panorama City office of the Los Angeles STETS program, most Phase 1 placements were at the Veterans Administration Hospital in a neighboring city, which for several years had provided placements for clients of ADEPT, the STETS sponsoring agency. Positions available at the hospital included custodial, food service, internal messenger and mailroom jobs. The downtown STETS office obtained similar positions at other hospitals.

Other Phase 1 worksites included the California Conservation Corps, a for-profit candy factory and two sheltered workshops. Not many participants were initially placed in the workshops, however, because workshop staff objected to paying STETS workers the minimum wage at a time when other workers received piece rates. However, the STETS staff in Los Angeles became more favorably disposed toward the workshops by the end of the demonstration. One staff member described the change:

> Initially, our thinking was that the whole idea of STETS was to get people out of workshops. But after seeing our participants, we came to think that for some participants a workshop would be good for them at the beginning. Some needed a little more time to understand what work was all about. The idea of being productive. Meeting quotas. They get closer monitoring at the workshops.

As in New York, the Los Angeles program depended on the worksite supervisors to conduct most skills training. In contrast to New York, counselors primarily assessed performance through telephone contact with participants' supervisors rather than through direct observations of participants at their worksites. Worksite visits were limited usually to the one monthly visit required by CETA. Contact with participants was otherwise kept up by group counseling sessions at the program site and by telephone.

Also in contrast to New York, the program used outside consultants to teach some participants how to perform jobs. From the perspective of the Los Angeles director of client services, it was sensible to subcontract job tutoring when it was needed, rather than to depend on the counselors:

> None of us really has the knowledge to do what a real job tutor does in terms of breaking down tasks and teaching them to the participant.

In the downtown office, one counselor noted:

> A job tutor on our staff was very useful for helping with the buses, and going around and constantly checking with the participants while they were working. I tried to do that, but I was so busy trying to develop jobs that I couldn't go back to the participants as much as I felt was needed. I think it is necessary to keep going back.

The training process at the Los Angeles program was unfortunately impeded by the site's administrative arrangement. As noted earlier, ADEPT is primarily a placement agency for disabled persons (most of whom are physically disabled), and the organization had previously offered little in the way of worksite support services to its clients. According to the original plans for the STETS program, STETS staff were to provide the support services to STETS participants, with ADEPT counselors providing the placements. It proved difficult, however, for the two staffs to coordinate, and the arrangement was changed so that ADEPT staff handled both placement and support for one set of participants, while STETS staff performed the same functions for a second group.

Throughout much of the demonstration, the level of expected ADEPT support did not materialize. Staff of this organization were particularly slow to provide on-the-job training, the responsibility with which they were least familiar. In the end, STETS participants were treated no differently from ADEPT's regular clients, and the Los Angeles site functioned more as a job placement agency than as the kind of Supported Work program envisioned in the original program design.

B. Phase 1 in Sheltered Workshops.

In Cincinnati and St. Paul, Phase 1 activities took place primarily in production facilities operated directly by the sponsoring organizations. The Cincinnati sheltered workshop had approximately 150 employees performing assembly and packaging jobs, many of which required the use of machinery. Most of the tasks involved packaging games, toys and greeting cards in cellophane wrapping; and counting, bagging and sealing nuts and bolts, candies and other items. The organization had also acquired a plastics warehouse, where participants were called upon to sort plastics for recycling and to feed them into machines. The program, in addition, operated a janitorial service, in which a small crew, under the direction of a staff member, performed cleaning services for local businesses.

While in many ways similar to a typical sheltered workshop, the St. Paul production facility differed in its composition of workers and types of jobs. Approximately 35 percent of the facility's employees were non-handicapped persons who served as role models for the handicapped workers. Also, their higher productivity and skills allowed the organization to bid on more sophisticated and varied production contracts. During the demonstration period, some of the jobs in this large facility included collating, inspecting and packaging postage stamps; assembling small products, such as jacks for telephones and stereo equipment;

reconstructing wooden pallets; and disassembling old telephones for recycling. Many tasks involved the use of fairly complicated machinery.

In Tucson, the third site using a sheltered model, an independent agency, The Handlers, Inc., provided Phase 1 services during most of the demonstration.[5] Some participants were assigned to benchwork sorting, assembly and disassembly tasks in a sheltered workshop setting, where all of the tasks were relatively simple and required little use of machinery. Others were placed at a Handlers' woodworking facility, where they built crates and pallets, using power saws and other such machinery.

In all three sites, training took place on the job, and except in Tucson, STETS counselors were in charge of it. As in New York, the counselors demonstrated specific tasks, observed workers' performance and offered the necessary criticism.[6] Much of the instruction entailed breaking down tasks into simple components and demonstrating each step separately, a process recommended by a number of experts in the field of mental retardation.[7] Praising participants for correct performance was an important part of this process, and it always took place within hearing of other workers. This not only encouraged the particular participant, but also highlighted for others the value of effective and efficient production.

Typically, training in Cincinnati and St. Paul was most intensive during the first few days. At this point, it was not unusual for trainers to instruct and observe participants closely for several hours a day. This type of attention could usually be reduced within a few days unless a participant was shifted to a new job in the workshop (a frequent practice used to broaden experience and to meet changing production needs); when such a shift occurred, the level of instruction intensified again.

Cincinnati's training process was particularly structured. There, trainers drew graphs which charted participants' productivity, attendance and punctuality, and shared them with participants. "Performance contracts" were developed for problem workers to specify levels of improvement needed within set periods of time. Similar techniques were used in Tucson by the counselors employed by The Handlers, who conducted the training. STETS counselors visited participants at the worksites several times weekly to observe and guide them.

At the three sites using the sheltered model, as in New York and Los Angeles, much of the assessment was informal. Cincinnati and St. Paul, however, administered some formal testing on an as-needed basis to supplement observation on such criteria as participants' stamina, mobility, coordination, reading and math skills, ability to tell time, and vocational interests.[8] St. Paul even required formal assessments before placing participants into Phase 1 jobs. These tests were administered by outside agencies and, at an early point in the demonstration, caused delays for participants in starting the program.[9] In fact, the practical utility of formal testing appeared to be limited. Cincinanti staff found that the tests tended to confirm their observations and, while helpful, were by no means essential. St. Paul staff reached a similar conclusion and made little use of the test information.

The Phase 1 sheltered model also raised questions about the utility of reimbursing participants at the minimum wage, rather than at the piece rates usually paid in the workshops. The operators of the St. Paul site were opposed to this practice, believing it would generate resentment among other workers at the facility. MDRC agreed to rescind the requirement at this site only, hoping it would also allow researchers to examine some of the implications of paying piece rates in Phase 1.[10] In Cincinnati, which paid the minimum wage, the different treatment of workers did cause some problems, although not to any great degree. Staff believed, however, that an important incentive was denied the program -- the promise of a higher wage rate to motivate participants to move out of the workshop and into Phase 2 jobs.

One difficulty sheltered workshops face in providing high-quality training is a steady flow of work, which in these facilities is always dependent on production contracts. If the contracts diminish, so do the work hours. In Cincinnati, during early 1982, business was poor, and the workshop was forced to reduce the work hours of all participants until production picked up later in the year. This also occurred in the Tucson sheltered workshop.

Staff members in Cincinnati and Tucson identified an additional and potentially more serious problem in the use of a sheltered environment. Typically, the kinds of work available and the environment itself were different from those in Phase 2. Many staff believed that Phase 1 participants were not being adequately prepared for work other than simple tasks, and that it was not even possible in the workshops to judge their suitability for more demanding jobs.[11] In an attempt to resolve this problem, Cincinnati increasingly moved the more capable Phase 1 participants into temporary positions in its salvage warehouse or into janitorial services -- positions thought to more closely resemble Phase 2 jobs. However, while sheltered workshop training can obviously be improved by providing jobs that more closely resemble regular ones, the nature of the contract work performed in these settings makes it difficult to create such positions.

Counterbalancing these factors, staff found a number of advantages to the sheltered approach, the most important one being the opportunity for counselors to spend a good deal of time observing and assisting participants and getting to know their needs and abilities. Counselors were also better able to manipulate the training environment to suit particular needs -- for example, varying the intensity of supervision or tailoring assignments to certain tasks. The sheltered approach also reduced the program's job development burden, since staff did not have to pursue outside jobs for Phase 1 training.

C. Other Phase 1 Support Services

While the degree to which staff members became directly involved in skills training varied among sites, counselors at all sites assumed direct responsibility for teaching participants appropriate work habits -- although there were inter-site differences in the intensity and quality of these efforts. Generally, counselors discussed work habits with participants individually and as needed, either in special sessions or in the course of monitoring participants at work. Counselors also handled emotional and family problems in individual counseling; in fact, as one counselor put it, the staff tried to address "anything that might affect the ability to perform on the job." Sometimes, although not often, individual sessions included the parents of participants.

Sites also conducted group counseling sessions, which were intended to provide peer support and to reinforce the kinds of behaviors and attitudes that staff members tried to inculcate in individual counseling. New York, for example, ran a group counseling program of 16 weeks which included work orientation and required weekly attendance. The Cincinnati program ran weekly group meetings on work-related issues and held other workshops on special topics as judged necessary. In St. Paul, daily group sessions were held in approximately three-week cycles; Los Angeles and Tucson also had meetings on a regular basis. Counseling, both individual and group, also focused on independent living skills, such as how to manage money and handle living arrangements. Participants were taught how to budget their paychecks and given advice on topics such as proper social behavior, finding and managing an apartment, and shopping.

Counselors also worked with participants on job search skills -- how to look for a job, fill out an application, and act in an interview. These issues were usually addressed as participants approached the transition to Phase 2 jobs, many of which required interviews. At most sites, job search assistance was intensified in Phase 2 when competitive employment was closer at hand.

Travel training, mostly in the form of teaching participants bus and subway routes to work, was an additional Phase 1 and 2 service, provided on an as-needed basis. This kind of training was most intensive in Tucson, where staff were more willing than at the other sites to enroll individuals who had only limited previous experience in independent travel. Roughly half of that site's participants needed to be taught travel routes between work, home and the STETS program, and how to use public transportation more generally.

III. Phase 2 Training and Support Services

According to the program model, Phase 2 jobs were to approximate competitive jobs in their levels of responsibilities and skills. Moreover, the placements were expected to be primarily in the private sector and to have the potential to evolve or "roll over" into competitive jobs, where the participants would become part of the regular workforce. At all sites, Phase 2 work experience occurred in regular rather than sheltered work settings. (See Table 3.1 for the distribution of types of jobs in Phase 2.)

In New York and Los Angeles, where participants had already been placed in Phase 1 regular work settings, the Phase 2 training process continued as before. New York counselors continued to visit worksites frequently and to use these visits for skills training and counseling. However, staff recognized that participants' chances for succeeding in competitive employment would be improved if they commanded a broader range of skills. As the program director explained:

> Because of the large unemployed labor pool, trainees' versatility is critically important. Firms want people they can shift across a variety of jobs.

Another counselor explained:

> In Phase 2 you try to give them more diversity and work skills. If a person is doing photocopying, for example, you may try to teach them how to operate different types of copiers.

Typically, counselors looked for new opportunities at the worksite and negotiated with the supervisor to make the desired change. Sometimes a participant was shifted to a new job entirely, either at the same worksite or elsewhere.

Policies on Phase 2 at the Los Angeles Panorama City office resembled those in New York. According to the counselor in that office:

> I didn't do all that much actual changing of worksites for Phase 2. But in some cases, participants were transferred to different departments where other disciplines could be worked on. In other cases, we'd just expand the job descriptions. If there were new things that could be learned, and other responsibilities that could be given there, we'd stretch the hours and responsibilities to test their capabilities.

Participants supervised by the downtown Los Angeles office, however, often changed worksites (in both Phases 1 and 2) at the end of six weeks; the state program funding the majority of participants allowed no more than 250 hours of work experience in fully subsidized public and nonprofit agencies. Participants in that office also had few opportunities in which to expand their work skills. The pattern of low counselor contact seen in Phase 1 persisted into Phase 2, with the site conducting worksite visits only about once every three to four weeks.

In Cincinnati, St. Paul and Tucson -- where the shift from sheltered to non-sheltered work settings took place -- the counselors' role during Phase 2 was similar to that adopted in New York. Counselors were substantially involved in the training process, emphasizing the importance of good work habits and providing general monitoring and support. Particularly during the first few weeks of a participant's Phase 2 placement, all three of these sites provided what they referred to as "intensive training." Counselors spent several hours a day with participants, several days a week (and sometimes all day, every day of the week). They continued this type of training -- although with gradually decreasing frequency -- for up to several months. Once the counselor judged a participant's performance satisfactory, visits diminished (but not below several times a month), and monitoring depended more on counselor contact with the supervisor.

Across all the sites, the level of counselor involvement at the worksites depended partly on the receptivity of employers. Some employers did not like counselors to conduct training at the place of business; it interfered with work, they said, or the assistance was unnecessary. Sites in these cases talked to the supervisors by telephone and met with participants at the program offices. They also visited participants during lunch breaks or at other times not disruptive of work. As a New York counselor explained:

> Most supervisors don't mind my visits. They like me. Some resent it if I take a trainee away from her work to talk to her. To ease this problem, I try to see her when she's less busy. I feel better about pulling someone off the job in the public sector worksites. In the private sector, I sometimes have to walk on eggshells. For example, I want John to get that job, so I'm more careful timing my visits. I try to adapt to their schedule. I may meet with the trainees on lunch breaks or before work. But some employers don't mind when I come.

As the comment suggests, counselor interventions -- both to shape the nature of jobs and to train and monitor -- were easier when Phase 2 jobs were subsidized and in the public sector. Private employers who were paying the full costs of the participants' labor could be reluctant to involve program staff.

At all sites except New York, group counseling sessions were held less frequently during Phase 2, largely because they were hard to schedule. Most participants worked in different locations and had varying hours. Limited public transportation was an additional problem. In New York, where there was easy access to public transportation and a much greater emphasis on public or nonprofit Phase 2 worksites, group sessions were more common. Especially towards the end of Phase 2, many participants attended special job search skills workshops.

IV. Service Receipt in Phases 1 and 2

As pointed out earlier, STETS guidelines stated that participants were to remain in Phase 1 and 2 no longer than 15 months. With some cross-site variation, the program generally achieved this goal. As shown in Table 3.2, participants on average were enrolled in the program (including both phases) for 10.5 months. Eighty-eight percent were enrolled for 15 months or less. During their stay, participants worked an average of 743 hours in paid employment (Table 3.3), for an average of 2.7 employers. Average active time (i.e., the time during which participants were actively receiving program services) was 8.6 months (Table A.1).

The data also show that, as intended, Phase 1 work experience was limited. The average paid time of employment, at 414 hours, was below the 500-hour limitation (Table 3.3). However, because of difficulties in developing Phase 2 jobs, Phase 1 employment took place over a longer time than originally anticipated. As is shown in Table 3.2, the average length of stay in that phase was 5.1 months, with almost three-quarters of the participants staying in Phase 1 jobs for over three months. Phase 2 length of stay was somewhat longer. Participants were enrolled in Phase 2 for an average of 6.3 months and worked an average of 470 paid hours (Table 3.3).

TABLE 3.2

PERCENTAGE DISTRIBUTION AND AVERAGE DURATION OF ENROLLMENT IN STETS, BY PHASE AND PROGRAM SITE

Phase and Duration of Enrollment	Los Angeles	New York	Cincinnati	St. Paul	Tucson	All Sites
Phase 1[a]						
1 Month or Less	6.9	6.2	1.7	11.4	2.0	5.4
2 - 3 Months	22.4	26.2	25.0	15.9	11.8	20.9
4 - 5 Months	45.6	47.7	25.0	22.7	25.5	34.5
6 - 7 Months	13.8	10.8	23.3	25.0	25.5	19.1
8 - 9 Months	5.2	6.2	11.7	9.1	15.7	9.4
10 - 12 Months	3.4	1.5	6.7	6.8	11.8	5.8
More Than 12 Months	1.7	1.5	6.7	9.1	7.8	5.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Average Duration (Months)	4.1	3.8	5.5	5.7	6.6	5.1
Number of Enrollees	58	65	60	44	51	278
Phase 2[b]						
1 Month or Less	2.8	7.7	2.5	4.5	5.6	4.8
2 - 3 Months	11.1	15.4	10.0	36.4	11.1	15.1
4 - 5 Months	11.1	21.2	27.5	27.3	25.0	22.0
6 - 7 Months	13.9	13.5	25.0	4.5	19.4	16.1
8 - 9 Months	13.9	19.2	25.0	27.3	19.4	20.4
10 - 12 Months	44.4	17.3	10.0	0.0	8.3	17.2
More Than 12 Months	2.8	5.8	0.0	0.0	11.1	4.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Average Duration (Months)	7.6	6.5	5.7	4.2	6.5	6.3
Number of Enrollees	36	52	40	22	36	186[c]
Phases 1 and 2 (Combined)[d]						
1 Month or Less	3.4	1.5	1.6	2.2	0.0	1.8
2 - 3 Months	1.7	4.6	6.5	8.7	7.5	5.6
4 - 5 Months	15.5	7.7	12.9	4.3	3.8	9.2
6 - 7 Months	13.7	10.8	12.9	21.7	11.3	13.7
8 - 9 Months	10.3	18.5	8.1	15.2	11.3	12.7
10 - 12 Months	8.6	23.1	12.9	17.4	7.5	14.1
13 - 15 Months	46.6	26.2	41.9	15.2	20.8	31.0
More Than 15 Months	0.0	7.7	3.2	15.2	37.7	12.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Average Duration (Months)	10.1	10.2	9.9	9.6	12.8	10.5
Number of Enrollees	58	65	62	46	53	284

(continued)

TABLE 3.2 (continued)

SOURCE: MDRC tabulations of Monthly Status Change Forms in the STETS Information System.

NOTES: Percentage distributions may not add exactly to 100.0 because of rounding.

[a] Includes Phase 1 enrollment time for enrollees who entered Phase 1.

[b] Includes Phase 2 enrollment time for enrollees who entered Phase 2.

[c] Excludes one enrollee in Los Angeles for whom data are missing.

[d] Includes Phase 1 and Phase 2 enrollment time for persons who ever enrolled in STETS.

TABLE 3.3

DURATION OF PAID EMPLOYMENT, BY PHASE AND PROGRAM SITE

Phase and Duration of Paid Employment	Los Angeles	New York	Cin-cinnati	St. Paul	Tucson	All Sites
Phase 1[a]						
Average Hours Worked	301.[illegible]	438.6	407.6	502.9	425.6	414.0
Average Days Worked	42.4	65.0	79.2	77.0	98.3	72.1
Number of Participants	49	65	60	42	49	265[b]
Phase 2[c]						
Average Hours Worked	736.0	391.1	458.8	376.7	381.4	470.3
Average Days Worked	96.5	63.6	77.6	77.4	73.1	76.6
Number of Participants	37	52	40	22	36	187
Phase 1 & 2 (Combined)[d]						
Average Hours Worked	857.0	751.4	713.5	700.2	691.7	743.0
Average Days Worked	115.3	115.9	130.9	117.5	149.0	125.6
Number of Participants	49	65	60	42	50	266

SOURCE: MDRC tabulations of Monthly Activity Forms in the STETS Information System.

NOTES: [a] Includes Phase 1 employment for enrollees assigned to a Phase 1 job.

[b] Excludes one participant in Tucson for whom data are missing.

[c] Includes Phase 2 employment for enrollees assigned to a Phase 2 job.

[d] Includes Phase 1 and Phase 2 employment for enrollees assigned to at least a Phase 1 job.

V. Phase 3 Services

As originally conceived, the third and final STETS stage was to begin when participants' wages were no longer subsidized by the program. During Phase 3, staff were to continue their efforts to solve problems and to help participants adjust to unsubsidized employment. Phase 3 was supposed to last for no longer than six months.

In practice, however, the distinction between Phases 2 and 3 became blurred, probably because in all sites, except New York, many Phase 2 jobs were unsubsidized. This was, of course, a positive development because it reduced program operating costs, but it also raised questions about the structure of Phase 3. When the pattern first became evident, MDRC sought to define this period as one in which: 1) the program was no longer providing "substantial" support services to the participant, and 2) the participant, staff and employer agreed that the participant was not a trainee, but a permanent member of the regular workforce.

Nevertheless, the distinctions between Phases 2 and 3 were never precise. Regular Phase 2 worksite visits continued into Phase 3 in all sites except Los Angeles, although they generally occurred less frequently. In some cases, they even increased, at least temporarily, because regular employment presented new problems to participants. In St. Paul, for example, staff observed that, within three months of entering Phase 3, many participants moved into independent living situations, which in turn created stress that could affect work performance.

The New York director described the more typical set of difficulties confronting participants whose Phase 3 jobs were in new firms, rather than in firms where they had worked in Phase 2 jobs:

> Newly hired (Phase 3) STETS participants are often in a vulnerable position; employers are increasingly likely to fire any employee who is having some difficulty when there is a large pool of applicants available to take his or her place. For example, one STETS participant was learning her job at a slower pace than other workers hired at the same time. The supervisor was considering termination. However, the follow-up counselor began working alongside her on a daily basis and the participant was able to meet performance standards.

Such temporary increases in support notwithstanding, staff contact with participants declined considerably over time. As Table 3.4 shows, fewer participants were in contact with staff members at the end of Phase 3 than in the beginning, and the number of contacts had also decreased.

It is important to note, however, that participant contact did not necessarily end after six months. In the New York program, for example, counselors tried to keep in touch with participants at least bimonthly for an additional six months. In fact, most staff members believed that it was necessary to have a longer post-program contact period than that originally delineated in the STETS model

TABLE 3.4

INTENSITY OF PROGRAM CONTACT WITH PHASE 3 PARTICIPANTS, BY MONTH IN PHASE 3 AND PROGRAM SITE THROUGH DECEMBER 1983[a]

Month in Phase 3 and Measure of Intensity	Los Angeles	New York	Cincinnati	St. Paul	Tucson	All Sites
First Month						
Average Number of Contacts	0.8	1.8	2.9	1.9	3.4	2.3
Percent of Participants Contacted	78.9	65.6	100.0	72.7	93.1	82.6
Number of Participants in Phase 3 at Least One Month	19	32	24	11	29	115
Third Month						
Average Number of Contacts	0.7	0.9	2.1	2.8	2.8	1.8
Percent of Participants Contacted	57.9	62.5	90.9	80.0	82.8	74.1
Number of Participants in Phase 3 at Least Three Months	19	32	22	10	29	112
Sixth Month						
Average Number of Contacts	0.6	0.5	1.4	1.2	2.4	1.2
Percent of Participants Contacted	54.5	40.0	90.5	44.4	72.7	61.3
Number of Participants in Phase 3 at Least Six Months	11	30	21	9	22	93

SOURCE: MDRC tabulations of Monthly Follow-up Forms in the STETS Information System.

NOTES: [a] Because follow-up data were collected only through December 1983, contacts with participants still in Phase 3 during early 1984 are not included in these calculations.

CHAPTER IV

JOB DEVELOPMENT

The rate at which participants could be moved through the first two program phases and into permanent jobs, and the quality of the match between their skills and employers' expectations, were both largely dependent on the effectiveness of job development. For several reasons, planners had anticipated that this task would pose some difficulties. There was an impending recession and a relatively large number of enrollees, and most sites had only limited experience in private sector job development. Past research also suggested that many employers hold negative attitudes toward hiring the mentally retarded.

This chapter examines how well the sites were able to overcome these problems. It describes the program's job development efforts for both Phase 1 and 2 training positions (in non-sheltered settings) and for regular Phase 3 jobs. It also focuses on the strategies and results of each site.

I. Job Development Strategies

At all sites -- with the exception of Los Angeles and (during 1983) St. Paul -- job development was the sole responsibility of one or more staff members. (In Los Angeles, consistent with the practice of the sponsoring agency, each counselor was expected both to provide training assistance and find jobs for the individuals on his or her caseload.) Job developers on the whole had varied backgrounds. Some came from the business world, while others had counseling or other human services backgrounds.

Few, however, had previous experience in developing jobs for mentally retarded persons. Information on how staff members developed jobs was obtained in interviews with MDRC researchers and from an eight-month job development contact study, which MDRC conducted in four of the demonstration sites. The Los Angeles program was excluded from this last analysis because of data collection problems. (See Appendix B.)

Job developers identified worksites by scanning newspaper want ads and telephone directories, soliciting referrals from friends and professional acquaintances, and simply spotting local firms and agencies in the community. More often than not, they had to rely on "cold contacts" with employers. This was less true in New York and Los Angeles, where job developers were able to rely on a network of employers in public and nonprofit agencies where the STETS sponsoring agency had previously placed other clients.

From September 1, 1982 through April 30, 1983, job developers kept a record -- using standardized MDRC forms -- of the contacts they made with employers from whom they hoped to obtain training slots or Phase 3 jobs. For study purposes, a distinction was made between a "preliminary contact" (the initial attempt to reach the appropriate person) and a "substantive contact," wherein the job developer had an opportunity to describe and "sell" the program. For each substantive contact, job developers were asked to specify the source from which they identified the employer.

The results in Table 4.1 show that, among the 621 employers who granted at least one substantive contact (most were in not-for-profit firms), almost 80 percent had come initially from cold contacts, a finding consistent with the reports from staff interviews. Only about 4 percent

TABLE 4.1

PERCENTAGE DISTRIBUTION OF JOB DEVELOPERS' CONTACT SOURCES FOR EMPLOYERS WHO GRANTED A SUBSTANTIVE CONTACT

Source of Contact	New York	Cincinnati	St. Paul	Tucson	All Sites
Cold Contact	46.7	58.8	92.9	100.0	79.7
Previous Placements by STETS Sponsoring Agency	12.6	2.9	0.6	0.0	3.4
Personal/Professional Acquaintance	16.3	0.0	1.2	0.0	3.9
Contact Made Prior to STETS Contact Study	8.2	31.4	0.0	0.0	6.9
Other	16.3	6.9	5.3	0.0	6.1
Total	100.0	100.0	100.0	100.0	100.0
Number of Employers	135	102	169	215	621[a]

SOURCE: Job Development Contact Study.

NOTES: Percentage distributions may not add exactly to 100.0 because of rounding.

Los Angeles has been excluded from this analysis due to problems in data collection.

[a] Excludes four employers in New York, four in Cincinnati, four in St. Paul and two in Tucson for whom data are missing.

resulted from the job developer's own personal or professional relationships, and a similar amount came from friends and acquaintances. In about 7 percent of the cases, job developers had been in contact with the employers before the beginning of the study. Three percent of the jobs were in firms where the sponsoring agency had previously placed clients.

Table 4.1 also reveals some inter-site differences. For example, New York and Cincinnati used sources other than cold contacts more often than the other sites. Probably because Job Path had been in operation for two years before STETS, New York job developers had a larger number of personal or professional contacts. Staff in those two sites also concentrated on job development at an early point in the demonstration, and had already contacted a good number of employers by the time the study began.

At all sites, developers looked for jobs in firms of all sizes and in many kinds of industries. They soon discovered, however, that the level of effort necessary for pursuing jobs in large firms was considerably greater than that for small ones because of the difficulty in reaching persons with hiring authority. Thus, while they continued to keep in touch with the large firms, their efforts centered on small businesses and came to focus on the rather narrow range of jobs that had characterized the program almost from the outset. Typically, the jobs they developed included janitorial and maintenance positions, dishwashing and food service jobs, and housekeeping and other service jobs. (In New York, there was an emphasis on mailroom messenger and stock clerk positions.) Job developers reported that the competence range and skill levels of most participants were best suited for these jobs. Additionally, the high rate of turnover in these positions was a strong selling point for STETS workers.

Once potential worksites were identified, job developers called employers and/or visited them in person to encourage them to become involved in the program. Employers who were willing to listen were given a sales presentation that was fairly consistent across sites, emphasizing that hiring STETS participants made good business sense. Employers were told, for example, that participants were capable of performing many jobs well, and because their opportunities were limited, they were not likely to leave low-skilled positions quickly. A New York job developer repeated for an MDRC researcher part of her typical presentation, which focused on the economic benefits of reliable employees:

> Where are your needs? Do you have a high turnover rate in any area? Do you have any areas where people get bored? Our people are good workers. They just happen to be handicapped. When people come to you looking for a job, I'm not saying hire them just because they are handicapped and it's affirmative action, but because it will be good for *your* needs. We're providing you with a mailroom worker, for example, who can be a good worker, who will show up every day.

Because of possible employer misconceptions about retarded persons and their abilities, participants were typically described as "slow learners," rather than mentally retarded. When that term came up, job developers distinguished it from mental illness, and emphasized that it was mild. As a New York job developer explained:

> I will say that we work with developmentally disabled young adults. I never say *mentally* retarded, I say *mildly* retarded. If I say mentally, it gives the wrong impression. Our clients aren't mental. They don't have emotional disorders. They're not in mental hospitals.

In the New York program, the title "job developer" was eventually changed to "account executive" to further highlight the program's orientation toward the business world. As the director of job development at that site noted, "We're trying to shed our social service skin." Similarly, Cincinnati developers were called "employment specialists."

For Phase 3 positions, employers were told that STETS participants were, in effect, "prescreened" workers (i.e., they had program work experience) and that it was less risky to hire them than to hire other persons "off the street." For Phase 2 positions, employers were told that some participants might not yet be good workers. However, they were assured that they would not face the prospect of having to "fire" handicapped workers; the program would assume the burden of removing poor performers from the job. Another incentive stressed by the job developers was program assistance in training STETS participants for a specific job.

Employers were also offered financial incentives. As discussed earlier, in New York and Los Angeles full wage subsidies were available for work experience in non-sheltered Phase 1 positions in public and nonprofit agencies. Usually these subsidies were paid by CETA funds, which allowed up to 1,000 hours of work experience which could extend into Phase 2 (as long as the work was performed in these agencies). During the period of CETA funding, participants remained on the STETS payroll and received fringe benefits. The Los Angeles site, as mentioned earlier, was also assisted by a state youth program.

New York extended non-CETA-funded wage subsidies to some private sector firms in the form of "service contracts," which lasted from 2 to 12 weeks. In these agreements, as with other subsidies, the participant stayed on the program's payroll, and the program was responsible for fringe benefits (and in some cases for part of the wage). The employer paid the program a "fee" covering the part of the wage previously agreed to.

Up to the last year in St. Paul, Phase 2 wages for public and private sector jobs could be subsidized for up to eight weeks by on-the-job training funds from a national program of the Association for Retarded Citizens (ARC). Since the participant was required to be on the employer's payroll, with that employer reimbursed directly by ARC, the STETS job developers offered to assist employers in completing the paperwork. To a lesser degree, the other sites also used subsidies. In Cincinnati, Phase 2 employers were frequently offered a 25 percent subsidy, which lasted an average of 12 weeks and was paid out of the site's general STETS budget.

Panel A in Table 4.2 presents MIS data on the percentage of participants on an employer's payroll in their first Phase 2 jobs. (In Phase 1, no participants were on the employer's payroll.) The table indicates that, in all sites except New York, the proportion included at least half of the Phase 2 participants. The proportion is especially high in St. Paul and Tucson, where 100 percent and 89 percent of participants, respectively, were on employers' payrolls. In New York, in contrast, only 4 percent of Phase 2 participants were so listed. This reflects that site's emphasis on the use of CETA-funded Phase 2 jobs, many of which were extensions of Phase 1 positions.

Panel B in Table 4.2 shows the proportion of the wage paid by the employer, whether or not a participant was on the employer's payroll in his or her first Phase 2 job. Across the demonstration, employers paid at least part of the wage for over 57 percent of Phase 2 participants, and they paid the entire wage in 37 percent of the cases. Full payment varied considerably across the sites, however: from a low of 6 percent in New York to a high of 76 percent in St. Paul.

TABLE 4.2

A. PERCENTAGE DISTRIBUTION OF PHASE 2 PARTICIPANTS WHO WERE ON THE EMPLOYER´S PAYROLL IN THEIR FIRST PHASE 2 JOB, BY PROGRAM SITE

Payroll Status	Los Angeles	New York	Cincinnati	St. Paul	Tucson	All Sites
On Payroll	50.0	3.8	67.5	100.0	88.9	54.1
Not On Payroll	44.4	92.3	32.5	0.0	8.3	43.2
Don´t Know	5.6	3.8	0.0	0.0	2.8	2.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of Participants	36	52	40	21	36	185[a]

B. PERCENTAGE DISTRIBUTION OF THE PROPORTION OF WAGE PAID BY THE EMPLOYER FOR PHASE 2 PARTICIPANTS IN THEIR FIRST PHASE 2 JOB, BY PROGRAM SITE

Percent of Wage Paid By Employer	Los Angeles	New York	Cincinnati	St. Paul	Tucson	All Sites
0	47.2	63.5	30.0	14.3	38.9	42.7
1 - 50	19.4	28.9	15.0	9.5	8.3	17.8
51 - 99	0.0	1.9	10.0	0.0	0.0	2.7
100	33.3	5.8	45.0	76.2	52.8	36.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of Participants	36	52	40	21	36	185[a]

SOURCE: MDRC tabulations of Monthly Activity Forms in the STETS Information System.

NOTES: Percentage distributions may not add exactly to 100.0 because of rounding.

[a] Excludes one participant in Los Angeles and one participant in St. Paul for whom data are missing.

Planners for STETS did not anticipate a relatively large group of employers who would be willing to accept Phase 2 participants without any wage subsidies. The findings suggest, however, that it is feasible to make such arrangements with a sizable number of employers. Future STETS programs should take this possibility into account in developing Phase 2 jobs.

An additional incentive to employers was the Targeted Jobs Tax Credit, which private businesses were eligible to receive for each STETS participant they hired on a permanent basis (Phase 3). This credit amounted to a 50 percent reimbursement of first-year wages up to $6,000 and 25 percent of second-year wages to that same level. Job developers again offered to help employers complete the necessary paperwork.

In all sites except Los Angeles, job developers looked for positions on a continuous basis and tried to find jobs appropriate for a wide range of participants. In Los Angeles, however, job development was an individually tailored process. Counselors looked for jobs for specific clients when the need arose, and did not make ongoing efforts to develop a reserve.

In several sites, the directors of the program or its sponsoring agency assisted the job developers in making initial contacts, particularly in larger companies. In most cases, they tried to elicit the commitment of high-level managers who, it was hoped, might make it easier to place participants into the firms. Such contacts were made chiefly in individual meetings, luncheons with representatives of local businesses, and through presentations made to civic organizations, such as the Rotary Club.

Systematic involvement of higher-level staff or the sponsoring agency was most common at the New York site, where both the project director and the director of job development made frequent presentations to business groups. As part of that effort, they used a slide presentation of STETS participants at work. According to the director of job development, the approach worked well:

> A lot of people, we are understanding now, see retarded people in the worst possible light -- they are mongoloid, they drool, etc. So we take pictures of our clients on the job so they can see that retarded people look like everyone else. This makes people feel more comfortable in terms of working with retarded people. They see them working with other workers and fitting in. People say, "They don't look any different. It's not what I imagined." The slide presentation has been effective.

The New York site created a Business/Labor Advisory Council, which included business leaders, company personnel directors and representatives from labor unions. The advisory council was particularly helpful in defining the jobs and industries that showed growth potential and that might be appropriate for STETS participants. Some council members directed job developers to specific firms, and others conducted mock interviews with selected trainees who were preparing to enter unsubsidized jobs. The Cincinnati site also set up a job advisory council, which was comprised of leaders of about 10 area businesses to identify the kinds of jobs and industries on which the program should focus its job development efforts. Tucson, too, had a small advisory council late in the demonstration, but St. Paul and Los Angeles chose not to use one.

As a final step in the process, job developers followed up on employers who sounded genuinely interested, but who had no immediate openings. They usually tried to maintain contact with these employers by telephoning periodically. The Cincinnati site also sent copies of a newsletter on the program to potential sponsors.

II. Job Development Results

Results of the job development efforts were mixed. Sites eventually found both training positions and Phase 3 jobs for almost all participants who appeared willing to accept the positions and were capable of meeting the demands. In a few cases, participants were terminated from the program simply because no suitable Phase 3 jobs could be found. Occasionally, participants refused the specific jobs the program was able to find.

In general, job development was a difficult challenge for all sites, but two sites had particular problems. The Phase 3 placement rates (see Chapter V), interviews with staff members, and the job development contact study all suggest that the problems were most severe in St. Paul and Los Angeles.

The low acceptance rate of employers is apparent in the contact study. During the study period, only 4 percent of the 1,027 employers ever contacted across the demonstration (excluding Los Angeles) agreed to provide training positions or Phase 3 jobs for participants. St Paul had the lowest agreement rate (2 percent) while Tucson and Cincinnati had the highest (5 percent). New York achieved an agreement rate of 4 percent. It should be noted that these outcomes are not surprising; in fact, they are similar to those achieved by other employment programs, including those serving non-retarded persons. For example, in a special study of employers in the Youth Incentive Entitlement Pilot Projects (a project for low-income youths), only 13 percent of a sample of private sector employers in Detroit and Baltimore who were offered either a 50, 75 or 100 percent wage subsidy agreed to take on a program participant. Among those offered the 50 percent subsidy, the agreement rate was only 5 percent (Ball et al., 1981).

For employers who granted the STETS program a substantive contact but did not take on a participant, the reason given in over three-fourths of the cases was no appropriate openings. Only 3 percent said they were concerned about hiring retarded persons. Job developers believed, however, that these results understated the actual level of concern.

The fact that the overall supply of jobs available to the program was tight had important implications. First, sites could not be as selective as they had hoped in matching participants to jobs. Second, there were delays in moving individuals into Phase 2 jobs after their allotted Phase 1 hours were completed, and similar delays between Phases 2 and 3. As a result, many youths were in an inactive or "hold" status for weeks, or even months.[1] The delays were most severe in Los Angeles and St. Paul, but occurred to some extent in all sites.

III. Obstacles to Job Development

Job development was constrained by a variety of problems, one of the most important of which was the weak labor market. When the demonstration began, national unemployment was on an upward path, exceeding an average annual rate of 9 percent in 1982 and 1983. (See Table 4.3.) Moreover, the unemployment rate for youths having similar characteristics to STETS enrollees (20 years old, on average, and 45 percent non-white) was considerably higher.

Because many companies had imposed hiring freezes or had promised jobs to workers who had been laid off, the program had to compete with other job seekers for fewer jobs. Another effect, according to staff, was a reduced rate of turnover in many low-skilled, entry-level jobs; many workers

TABLE 4.3

UNEMPLOYMENT RATES, BY SITE AND YEAR OF DEMONSTRATION

Year	Los Angeles	New York	Cincinnati	St. Paul	Tucson	United States
1981[a]	7.3	8.8	9.7	4.5	5.6	8.4
1982	9.3	9.5	10.4[b]	6.5	9.4	9.7
1983	9.7	9.4	9.5[c]	6.6	9.2	9.5
1981 - 1983[d]	9.3	9.4	10.0	6.3	8.9	9.5

SOURCE: Employment & Earnings, U.S. Department of Labor, Bureau of Labor Statistics.

Area definitions are as follows: Los Angeles/Long Beach (Long Angeles County); New York City (5 Boroughs); Cincinnati (Clermont, Hamilton & Warren Counties, Ohio; Boone, Campbell & Kenton Counties, Kentucky; Dearborn County, Indiana); St. Paul (Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott, Washington & Wright Counties); Tucson (Pima County).

NOTES: [a] Data for 1981 are from October through December only. Participant intake for STETS did not begin until October 1981.

[b] The Bureau of Labor Statistics provided data only for March-July, September and October in 1982 for Cincinnati.

[c] The Bureau of Labor Statistics provided data only for May, July, August, October and November in 1983 for Cincinnati.

[d] This row is a weighted average unemployment rate for the period October 1981 through December 1983 using monthly data.

capable of jobs requiring greater skills were more willing to remain in low-skilled positions. Some jobs were consolidated, and the variety of tasks in entry-level positions sometimes increased responsibilities to a point where the jobs exceeded the capabilities of most STETS participants.

Factors other than the state of the economy also played a major part in affecting outcomes. The way in which sites handled job development was especially important. For example, St. Paul, the site with the lowest unemployment rate through the end of 1982, changed job developers several times. During 1983, the position was discontinued, and its responsibilities were divided among project directors and counselors. This move may well have impaired that site's effectiveness in securing jobs.

In Los Angeles, the obstacle seems to have been the site's individualized approach. Searching for jobs on an as-needed basis, rather than trying to develop a reserve, was not an efficient practice. Furthermore, the merging of the job development and training responsibilities made it difficult for counselors to perform either function well.

In several sites, job development was hampered by the fact that participants lived in large cities, many of which had limited public transportation. This problem, particularly acute in Los Angeles, narrowed the job possibilities, since most participants (virtually none of whom could drive) had to be able to reach work by public transportation.

Another important constraint was the short period of the demonstration. As noted previously, site operations, originally planned for a three-year period, were truncated by funding limitations. One result was that job developers, who had little experience in locating work for mentally retarded persons, had insufficient time in which to learn effective techniques, particularly since job development started late in some sites. It also took time to build a positive reputation in the communities: For example, job developers had few "success stories" to substantiate their claims about participant performance because, as the jobs were being developed, the majority of participants had not yet entered Phase 3, and few had completed it. On this point, it is instructive to recall New York's experience. This site's effort was made much easier because the parent organization ran a similar program with a positive track record. A network of previous employers could provide letters of recommendation and other more informal endorsements which staff could give to prospective employers.

IV. Employers' Reasons for Extending Job Opportunities to STETS Participants

Obstacles notwithstanding, many employers did provide jobs. This section, which primarily relies on data from the employer survey, presents some of the reasons why employers of Phase 2 participants agreed to offer training slots, some of which later became regular jobs.[2]

In the survey, a sample of employers who had accepted one or more Phase 2 participants was asked a series of questions about that decision. One question was open-ended: "When you were first asked to bring on a STETS participant, what were your reasons for deciding to do so -- aside from reasons you would normally have for bringing on a new employee?" The responses are presented in Table 4.4. The first column shows that by far the most commonly mentioned reason was altruism: 78 percent of the employers said that a desire to help a participant or the community was a

TABLE 4.4

REASONS CITED BY EMPLOYERS FOR ACCEPTING A PHASE 2 PARTICIPANT, BY SECTOR

Sector and Reason	Percent of Employers	
	Who Cited Reason[a]	Who Cited Reason as Only or Most Important Reason
All Sectors		
Desire to help participant/community	77.8	53.2
Program assistance with participant compensation	18.2	12.8
Training assistance offered by program	17.2	6.4
Previous employment experience with handicapped people	15.2	6.4
Had jobs appropriate for handicapped	14.1	4.3
Previous non-employment experience with handicapped people	11.1	1.1
Presentation by STETS staff	11.1	2.1
Relative or friend is handicapped	7.1	2.1
Number of Employers	99	94[b]
For-Profit Sector		
Tax Credit[c]	28.1	10.5
Participants had prior training in STETS[d]	7.0	0.0
Number of Employers	57	57

SOURCE: MDRC tabulations of data from employer responses to the STETS Employer Survey Instrument.

NOTES: The survey was administered to employers of Phase 2 participants at all five STETS sites between December 1982 and April 1983.

[a] Some employers cited more than one reason.

[b] Excludes 5 employers who cited more than one reason for accepting a STETS participant but did not cite any one reason as being the most important.

[c] Only for-profit firms were eligible for the tax credit.

[d] Public sector and non-profit firms are excluded from the base for this response because in the New York and Los Angeles sites numerous Phase 2 jobs in these sectors were originally Phase 1 jobs. In such circumstances, Phase 2 participants would not have had prior training in STETS at the time of the employer's decision, since they were initially accepted by the employer as Phase 1 trainees.

factor in their hiring decision. When respondents mentioned more than one reason, they were asked to specify the most important one. The second column in the table shows the proportion of employers to cite a specific response as the only or the most important reason. Altruism again is seen as the dominant factor: Over half of the employers gave it priority.

To some extent, the frequency with which altruism was mentioned may reflect a response bias in the survey; some employers may have wanted to appear socially concerned. Nevertheless, the reaction is not surprising: Altruism is a reasonable motive for wanting to hire handicapped persons, especially those in a special employment program. Although job developers emphasized enrollees' competencies, many employers may have felt that STETS participants were a group deserving of special attention.[3]

It should be emphasized, however, that almost 47 percent of the employers did not cite altruism as the only or the most important reason for sponsoring a participant. Clearly, other considerations were important. To examine them more closely, employers were asked additional questions about specific incentives job developers offered: wage subsidies, program assistance in training and monitoring participants, the Targeted Jobs Tax Credit, and participants' prior work experience in STETS (Phase 1). Employers were asked to rate the relative importance of each incentive on a scale ranging from "very important" to "not important at all."

The results, presented in Table 4.5, show that, among all employers inteviewed, 43 percent rated the financial subsidy as very or somewhat important. Three-quarters gave a similar rating to the program's offer of assistance in providing on-the-job training and monitoring of participants. Among employers in for-profit firms who could receive a tax credit, 42

TABLE 4.5

PERCENTAGE DISTRIBUTION OF EMPLOYER ASSESSMENTS OF THE IMPORTANCE OF SELECTED INCENTIVES FOR ACCEPTING A PHASE 2 PARTICIPANT, BY SECTOR

Sector and Incentive	Very	Somewhat	Little or Not At All	Don't Know	Total
All Sectors					
Financial Subsidy	34.3	9.1	56.6[a]	0.0	100.0 (99)
Training Assistance Provided by Program	56.6	18.2	25.3	0.0	100.0 (99)
For-Profit Sector					
Tax Credit[b]	19.3	22.8	29.8	28.1[c]	100.0 (57)
Participant Had Prior Training in STETS[d]	38.5	19.3	38.5	3.5	100.0 (99)

SOURCE: MDRC tabulations of data from employer responses to the STETS Employer Survey Instrument.

NOTES: The survey was administered to employers of Phase 2 participants at all five STETS sites between December 1982 and April 1983.

Numbers in parentheses refer to the sample size.

Percentage distributions may not add exactly to 100.0 because of rounding.

[a] Includes 52 employers who accepted a Phase 2 STETS participant with no financial subsidy and 4 employers who received compensation but said that it was of little or no importance in their decision.

[b] Only for-profit firms were eligible for the tax credit.

[c] These employers indicated that they were not aware that they might be eligible to receive a tax credit for hiring a STETS participant.

[d] Public sector and non-profit firms are excluded from the base for this response because in the New York and Los Angeles sites numerous Phase 2 jobs in these sectors were originally Phase 1 jobs. In such circumstances, Phase 2 participants would not have had prior training in STETS at the time of the employer's decision, since they were initially accepted by the employer as Phase 1 trainees.

percent rated this credit as very or somewhat important. In addition, 58 percent of these firms considered prior training in STETS as somewhat or very important.[4]

It is also notable that not all incentives were important to all employers. For example, over half indicated that wage subsidies were not very important; indeed, many accepted participants without any subsidies. Yet it is clear that, without some incentives, job development could have been considerably more difficult than it was.

Finally, it should be stressed that all incentives, including altruism, could only "open the door" to competitive employment; the participant's performance once on the job almost certainly determined whether he or she kept the job.

CHAPTER V

PARTICIPANT PERFORMANCE AND PLACEMENT OUTCOMES

This chapter examines two measures of program success: employers' assessments of participants' work performance in Phase 2, and Phase 3 placement rates. Unquestionably, the judgments employers form about participants have a number of important implications. Employers are, of course, unlikely to give permanent jobs to participants whom they see as poor performers. At the same time, they will probably be unwilling to take on new participants. Some may also convey their unfavorable opinions to other employers, who, in turn, may be reluctant to hire members of this population. Obviously, positive judgments can lead to very different and much more positive results.

Placement rates indicate the extent to which sites were able to move participants into competitive jobs. While they do not present a complete picture of the program's employment effects (which will be better seen in the final impact analysis), they are one useful measure of program performance.

I. Employer Perspectives on Phase 2 Work Performance

Employer perspectives were measured in a series of questions in the employer survey. The respondents were the direct supervisors of Phase 2 participants. Before considering the findings from this study, one should first understand how the survey was structured.

First, for most of the results, the unit of analysis was the participants evaluated, not the supervisors who evaluated them. (Some of the supervisors had worked with, and therefore assessed, more than one STETS participant.) Second, the evaluation covers only Phase 2 participants, and thus reflects their performance as trainees, not as regular workers. Third, supervisors' responses were included only if they had worked with participants for at least one month, to ensure that they had a basis for forming judgments. (In fact, almost three-fourths of the participants evaluated had been assigned to the same supervisor for seven weeks or longer.) Finally, in certain cases, supervisors were asked to compare participants to other workers who had held similar jobs for about the same amount of time.[1] (This was to ensure that STETS trainees were not unfairly compared to workers who had more experience or very different responsibilities.)

The results of the survey paint a fairly positive portrait. Panel A in Table 5.1 shows, for example, that a substantial majority of participants were rated "as good as" or "better than" other workers on each of five important dimensions of performance: attendance, punctuality, motivation, productivity and quality of work. Additionally, as shown in Table 5.2, employers judged that 91 percent of participants got along "very well" or "fairly well" with co-workers. Finally, employers and supervisors were asked whether they would again sponsor, or favor sponsoring, a STETS participant knowing what they do now about participant performance. Eighty-six percent said that they would.

It is important to note that the sample might have been biased in favor of the better workers. Since the survey included only participants who had worked for the same supervisor for at least a month, those excluded might have received more negative evaluations. Some possibly were removed

TABLE 5.1

A. PERCENT OF PHASE 2 PARTICIPANTS WHOSE WORK PERFORMANCE WAS RATED "AS GOOD AS" OR "BETTER THAN" OTHER NEW EMPLOYEES IN SIMILAR JOBS, BY DIMENSION OF PERFORMANCE

Dimension of Performance	Percent of Participants
Attendance	85.0
Getting to Work On Time	89.0
Motivation	79.0
Amount of Work Done (Productivity)	69.0
Quality of Work Done	78.0
Number of Participants	100

B. PERCENTAGE DISTRIBUTION OF NUMBER OF PERFORMANCE DIMENSIONS ON WHICH PARTICIPANT WAS RATED "AS GOOD AS" OR "BETTER THAN" OTHER NEW EMPLOYEES IN SIMILAR JOBS

Number of Dimensions[a]	Percent of Participants
None	1.0
One	3.0
Two	13.1
Three	11.1
Four	17.2
Five	54.2
Total	100.0[b]
Number of Participants	99[c]

(continued)

TABLE 5.1 (continued)

SOURCE: MDRC tabulations of data from supervisor responses to the STETS Employer Survey Instrument.

NOTES: The survey was administered to employers of Phase 2 participants at all five STETS sites between December 1982 and April 1983.

[a] The performance dimensions include Attendance, Getting to Work On Time, Motivation, Amount of Work Done (Productivity), and Quality of Work Done.

[b] Percentage distribution may not add exactly to 100.0 because of rounding.

[c] Excludes one participant for whom no information was available on any performance dimension.

TABLE 5.2

PERCENTAGE DISTRIBUTION OF SUPERVISOR ASSESSMENTS OF PHASE 2 PARTICIPANTS' RELATIONSHIPS WITH CO-WORKERS, AND TYPES OF PROBLEMS EXPERIENCED BY PARTICIPANTS WITH CO-WORKERS

Item	Percent of Participants
How Well Participant Got Along With Co-Workers	
Very Well	57.0
Fairly Well	34.0
Not Too Well	7.0
Poorly	2.0
Total	100.0[a]
Number of Participants	100
Participant Had Problem With Co-Workers	
Yes	35.0
No	65.0
Total	100.0[a]
Number of Participants	100
Problems Experienced By Participant[b]	
Participant upset by teasing by co-workers	22.8
Participant had difficulty communicating with co-workers	14.9
Participant got into fights or arguments with co-workers	11.4
Participant was shy, quiet, or afraid to associate with co-workers	11.4
Co-workers upset by participant's poor work or performance	29.6
Co-workers felt that participant asked too many questions	5.7
Co-workers offended by participant's poor hygeine	5.7
Number of Participants	35

SOURCE: MDRC tabulations of data from supervisor responses to the STETS Employer Survey Instrument.

NOTES: The survey was administered to employers of Phase 2 participants at all five STETS sites between December 1982 and April 1983.

[a] Percentage distributions may not add exactly to 100.0 because of rounding.

[b] Based on participants who were assessed as having had a problem with co-workers. More than one problem was identified for some participants.

from the program at an earlier point because they were performing poorly.[2]

The survey evaluation could also reflect response bias on the part of the supervisors: Supervisors could have been less critical of STETS participants out of sympathy for the handicapped. Generally, this did not seem to happen. Further analysis of the data suggests that supervisors attempted to make meaningful assessments of performance. For example, when all six performance measures were included in a correlation matrix, the degree of correlation between variables was modest, at best (Table A.2). In other words, supervisors tended to give both positive and negative evaluations to a participant depending on the performance area measured -- a pattern that lends credibility to the responses.

Other data support the reliability of the assessments. As indicated in Table 5.3, which is based on MIS data, over 66 percent of the Phase 3 placements were rollovers from Phase 2, testimony to employers' satisfaction with the performance of many participants. In addition, the value of output study, which is part of the forthcoming benefit-cost analysis, shows that participants produced goods and services of significant value in both Phases 1 and 2.

The employer survey showed, however, that in comparison to other new employees in similar jobs, many participants had important work-related problems. As already noted, a good number of participants were not given positive evaluations on all dimensions of work performance. This is apparent not only from the correlation matrix, but also from Panel B in Table 5.1, which indicates that only 54 percent of the participants received positive ratings on all five performance measures.

Productivity proved to be the area of greatest difficulty. As is

TABLE 5.3

PERCENTAGE DISTRIBUTION OF CHARACTERISTICS OF PHASE 3 PARTICIPANTS' FIRST JOB IN PHASE 3, BY PROGRAM SITE

Characteristic	Los Angeles	New York	Cincinnati	St. Paul	Tucson	All Sites
Hours Per Week (%)						
Fewer Than 10 Hours	0.0	10.3	12.5	15.4	0.0	7.1
10 - 20 Hours	26.3	27.6	25.0	23.1	21.4	24.8
21 - 30 Hours	10.5	6.9	12.5	30.8	32.1	17.7
Over 30 Hours	63.2	55.2	50.0	30.8	46.4	50.4
Average Hours Per Week	32.6	27.5	27.1	24.1	30.5	28.5
Starting Wage Per Hour (%)						
Less Than $3.35	0.0	3.4	0.0	0.0	10.7	3.5
$3.35 - $3.50	36.8	48.3	91.7	46.2	78.6	62.8
$3.51 - $4.00	26.3	24.1	8.3	30.8	10.7	18.6
Over $4.00	36.8	24.1	0.0	23.1	0.0	15.0
Average Starting Wage Per Hour ($)	4.23	3.70	3.38	3.70	3.33	3.63
Medical Benefits (%)						
No	36.8	41.4	16.7	46.2	71.4	43.4
Yes, Immediate	47.4	34.5	12.5	30.8	7.1	24.8
Yes, Delayed	15.8	24.1	70.8	23.1	21.4	31.9
Sector (%)						
For-Profit	52.6	82.8	87.5	84.6	89.3	80.5
Non-Profit	21.1	6.9	12.5	15.4	7.1	11.5
Public	26.3	10.3	0.0	0.0	3.6	8.0
Occupational Category (%)[a]						
Clerical, Sales	21.1	55.2	0.0	7.7	0.0	18.6
Service	57.9	34.5	70.8	69.2	46.4	53.1
Agriculture	0.0	0.0	0.0	0.0	7.1	1.8
Processing	0.0	0.0	4.2	0.0	7.1	2.7
Machine Trades	0.0	0.0	4.2	7.7	10.7	4.4
Benchwork	15.8	3.4	16.7	15.4	10.7	11.5
Structural Work	0.0	6.9	0.0	0.0	0.0	1.8
Miscellaneous	5.3	0.0	4.2	0.0	17.9	6.2
Union Job (%)	15.8	34.5	0.0	0.0	0.0	11.5
Rollover from Phase 2 (%)	36.8	41.4	87.5	100.0	78.6	66.4
Number of Participants	19	29	24	13	28	113[b]

(continued)

TABLE 5.3 (continued)

SOURCE: MDRC tabulations of Monthly Status Change Forms in the STETS Information System.

NOTES: Percentage distributions may not add exactly to 100.0 because of rounding.

[a] Occupational categories were derived from groupings of similar jobs, as defined by 1-digit codes from the Dictionary of Occupational Titles, 4th Edition, published by the U.S. Department of Labor, Employment and Training Administration, in 1977.

[b] Excludes three participants in New York and one in Tucson for whom data are missing.

apparent from Table 5.1 (Panel A), supervisors reported that 31 percent of the participants had more productivity problems than other new workers in similar jobs. Quality of work was another problem area: 22 percent of the participants were rated lower than other new workers. Among participants with productivity problems, slow performance was the reason in over half of the cases (Table A.3). Other difficulties mentioned were understanding, remembering or doing tasks (in about 38 percent of the cases) and poor motivation or concentration (in almost one-quarter of the cases). Supervisors cited poor work quality as stemming from motivational and attitudinal problems in 19 percent of the cases, and from difficulty in understanding or remembering the tasks in one-third.

As Table 5.2 indicates, 35 percent of all participants in the analysis sample had some difficulties in co-worker relations. Such strains, of course, are not uncommon among non-handicapped employees. For the STETS participants who experienced such problems, two types were most common: Participants became upset by co-workers' teasing (23 percent), and co-workers had trouble dealing with the poor performance or work of participants (30 percent).

Supervisors were also asked to estimate the amount of time it took them (and others in the organization) to train STETS participants compared to other new employees in similar jobs. They reported that 58 percent of the participants in the sample required "much more" or "somewhat more" training time (Table 5.4). One reason predominated: In about 66 percent of the cases, participants had difficulty understanding or remembering tasks.

For the three measures of work performance on which participants showed considerable variation -- productivity, quality and training time --

TABLE 5.4

PERCENTAGE DISTRIBUTION OF TIME SPENT BY SUPERVISORS TO TRAIN PHASE 2 PARTICIPANTS COMPARED TO OTHER NEW WORKERS IN SIMILAR JOBS, AND REASONS FOR MORE TRAINING TIME REQUIRED

Item	Percent of Participants
Relative Amount of Training Time	
Much More Time	24.0
Somewhat More Time	34.0
About the Same Time	35.0
Less Time	6.0
Don´t Know	1.0
Total	100.0[a]
Number of Participants	100
Reasons For Participants Requiring More Time[b]	
Participant had difficulty understanding/remembering tasks	65.5
Supervisor needed more time to evaluate participant	31.0
Participant lacked reading, writing, math skills	6.9
Participant had physical problems	1.7
Participant had lower motivation	5.2
Participant was more likely to make mistakes	5.2
Participant had poor concentration	3.5
Participant asked more questions	6.9
Other	6.9
Number of Participants	58

SOURCE: MDRC tabulations of data from supervisor responses to the STETS Employer Survey Instrument.

NOTES: The survey was administered to employers of Phase 2 participants at all five STETS sites between December 1982 and April 1983.

[a] Percentage distribution may not add exactly to 100.0 because of rounding.

[b] Based on participants who required "Much More" or "Somewhat More" training time. More than one reason was cited for some participants.

researchers conducted a further statistical analysis (cross-tabulation) to determine whether ratings were associated with certain background characteristics: age, sex, race, level of retardation, presence of a secondary handicap, possession of a high school diploma or equivalency degree, any prior work experience, and receipt of SSI or SSDI at enrollment.[3] Most of these variables were not significantly associated with differences on the performance measures. For example, differences in IQ level in both the mild and borderline categories (into which about 90 percent of participants fell) did not seem to influence performance, a finding consistent with a good deal of previous research in the field.[4] (However, it is difficult to draw conclusions from these data about moderate retardation and the level of performance.)

One background variable that produced statistically significant differences on all three performance measures was race.[5] In each case, whites performed less well than non-whites. One speculation is that non-whites were more frequently mislabeled as retarded, an observation which some staff members had made in their own informal assessments of participants' work performance.[6]

Two main conclusions can be drawn from these supervisor assessments. First, they suggest it is feasible to depend on outside employers to provide training in real work settings. As a group, STETS participants were not an excessive burden to supervisors and they appeared to have performed well enough so that they showed promise for competitive employment. At the same time, it is clear that many participants had important difficulties in Phase 2, indicating the continued need for support at this stage.

The employer survey also shows that, for the most part, Phase 2 supervisors did not resent counselors' visits to the worksites. Eighty-seven percent reported that "no problems arose" from these visits. In most cases, too, the supervisors did not react negatively to the amount of time counselors spent with participants during office visits -- which, for two-thirds of the participants, was less than one hour. (See Table A.4.) Supervisors instead tended to view the counselors' assistance as helpful. For 64 percent of the participants, supervisors rated the support as "very helpful," and for 14.4 percent, "somewhat helpful."

II. Placement Into Unsubsidized Jobs

This chapter has so far focused on the performance of participants as Phase 2 trainees. It now turns to a consideration of the extent to which the program was able to help these trainees become regular workers.

The demonstration's MIS data on types of departures from the program (Table 5.5) show that about 42 percent of all enrollees were placed into unsubsidized Phase 3 jobs. An additional 9 percent were placed into other educational and training programs, subsidized employment or sheltered workshops.

It should be noted that the demonstration's method of calculating placement rates -- focusing on all participants ever enrolled -- is a strict one, for it includes all individuals the program ever attempted to assist. Other employment programs have sometimes utilized less stringent measures. For example, in some programs, individuals who were enrolled but who withdrew from the program at the outset or who were terminated by the program prior to being assigned to a training job are not included in the population on which placement rates were based. This, of course, would

TABLE 5.5

PERCENTAGE DISTRIBUTION OF TYPES OF DEPARTURES FROM STETS AMONG ALL ENROLLEES, BY PROGRAM SITE

Type of Departure	Los Angeles	New York	Cincinnati	St. Paul	Tucson	All Sites
Entered Unsubsidized Employment	33.3	49.2	38.7	28.9	55.8	41.6
Entered Sheltered Workshop	7.0	1.5	1.6	8.9	3.8	4.3
Entered Educational or Training Program or Other Subsidized Employment	7.0	1.5	4.8	2.2	9.6	5.0
Terminated But Not Placed Into an Educational or Training Program or a Job	[illegible].6	47.7	54.8	60.0	30.8	49.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of Enrollees	57	65	62	45	52	281[a]

SOURCE: MDRC tabulations of Monthly Status Change Forms in the STETS Information System.

NOTES: Percentage distributions may not add exactly to 100.0 because of rounding.

[a] Excludes one participant in Los Angeles, one in St. Paul and one in Tucson for whom data are missing.

lead to higher placement rates. In STETS, for example, when only participants who reached Phase 2 are considered, the placement rate is 61.4 percent.

All sites were not equally successful in placing clients into unsubsidized jobs, with placement rates varying widely, from a high of 56 percent in Tucson to a low of 29 percent in St. Paul. Some of the reasons for this site variation will be explored later in this chapter.

An additional analysis using MIS data examined whether placement rates varied according to selected background characteristics, including age, sex, level of retardation, ethnicity, prior employment experience and prior job training. The results are presented in Table 5.6 and show some interesting differences. For example, placement rates were highest among persons classified as borderline retarded, and lowest -- although still sizable -- among the moderately retarded (a small subgroup containing only 36 individuals). Other differences were found in the sex and ethnicity variables, with males and Hispanics showing higher placement rates than females and other ethnic groups, respectively.

In general, however, the placement rates by subgroup were not dramatically different from the average for the demonstration as a whole. One can conclude that it is thus difficult to predict an enrollee's likelihood of finding a job on the basis of these objective characteristics alone -- a conclusion that is consistent with the findings from the employer survey. Together, these two studies suggest that it is probably unwarranted to target future STETS programs to subgroups distinguished by the characteristics studied here. The issue of targeting will be further explored in the demonstration's impact analysis, which will examine the

TABLE 5.6

PLACEMENT RATE INTO AN UNSUBSIDIZED JOB, BY SELECTED CHARACTERISTICS OF ENROLLEES AT TIME OF ENROLLMENT

Characteristic	Placement Rate
Age	
18-21 Years	41.4
22-24 Years	42.4
Retardation Range	
Moderate	33.3
Mild	38.6
Borderline	49.1
Any Secondary Handicaps	
Yes	39.3
No	43.4
Sex	
Male	49.1
Female	30.7
Ethnicity	
White	40.4
Black	39.5
Hispanic	51.4
Other	50.0
Any Prior Job Training	
Yes	42.6
No	41.3
Any Prior Employment	
Yes	41.3
No	42.7
Number of Enrollees	283[a]

SOURCE: MDRC tabulations of Application/Enrollment Forms in the STETS Information System.

NOTE: [a] Excludes one enrollee for whom data are missing.

influence of various background characteristics on post-program employment and other behavioral outcomes. When sample sizes permit, that analysis will compare outcomes for various matched subgroups of individuals in the experimental and control groups.

While placement rates are useful in assessing how well STETS was able to achieve its short-term goal of moving clients into competitive employment, by themselves they are only a limited measure of program performance. In order to understand whether the 42 percent demonstration-wide placement rate is a "good" outcome, it is important to ask two additional questions: 1) How does this rate compare with placement rates achieved by other programs; and 2) How do the post-program employment outcomes of STETS participants compare with the outcomes these individuals would have achieved without the assistance of the program? Ultimately, it is the answer to the second question, to be addressed by the impact analysis, that matters most: No matter how high the placement rate, the program will not show a net impact if members of the control group do as well as or better than members of the treatment group. Conversely, even if less than a majority of participants are successfully placed into unsubsidized jobs, as was true for STETS, the program may prove to have a positive net impact if members of the control group are less successful.

In the absence of post-program impact data,[7] only the first question posed above will be addressed here: How does the STETS placement rate compare with that of other programs? Ideally, other employment programs for mentally retarded persons with characteristics similar to those of STETS participants should be used for comparative purposes. Unfortunately, there is only a small quantity of such published program data and, among these sources, considerable variation on how rates were calculated. Nonetheless, it is possible to make some comparisons.

Studies of sheltered workshops show that these organizations tend to place few clients into competitive employment. As noted in Chapter I, a Department of Labor study found that, in 1976, workshops placed into competitive jobs approximately 8 percent of the average number of clients who were in daily attendance, including non-retarded as well as retarded clients (U.S. Department of Labor, 1979). Somewhat higher rates were found in the state-federal Vocational Rehabilitation program. In a special study prepared for MDRC by Mathematica Policy Research, it was determined that, of the approximately 140,000 retarded persons served by this program in fiscal 1978, 11 percent (or 28 percent of the cases of retarded persons officially "closed" that year) were placed into competitive jobs (Burghardt et al., 1980).

An alternative comparison can be made with the outcomes achieved by the National Supported Work Demonstration, which served as the genesis of STETS. The target groups in that demonstration, which were followed from 1975 through 1978, included long-term female welfare mothers, ex-addicts, ex-offenders and disadvantaged youths. While not mentally retarded, the members of each group had poor work histories and were considered very difficult to employ. While comparisons must be cautious -- given the differences in target groups, dates of operation and program features -- it is noteworthy that the STETS placement rate exceeded Supported Work's overall 29 percent placement rate for all target groups. The STETS rate even surpassed that for welfare mothers, the target group that showed the most positive post-program employment and benefit-cost outcomes (MDRC, 1980).

III. Characteristics of Phase 3 Jobs

Information on the characteristics of the Phase 3 jobs obtained by STETS sites has been presented in Table 5.3.[8] As that table shows, the vast majority (81 percent) of participants who were placed into unsubsidized jobs entered for-profit firms. Over half obtained service jobs, such as janitorial and kitchen positions, while 19 percent entered clerical work and 12 percent found benchwork (e.g., assembly) jobs. Few placements (12 percent) were union jobs, and most of these were made by the New York site.

In several sites, job developers, after some experience, stopped looking for, or reduced their emphasis on, jobs in fast-food restaurants. With their high turnover rates, these jobs at first seemed promising, but the job developers concluded that participants usually could not work with the speed these jobs demanded. Only those assigned to low-pressure tasks (such as keeping the salad bar stocked) managed to perform satisfactorily.

On average, Phase 3 jobs provided 28.5 hours of work per week, meaning that there were fewer full-time jobs than had been anticipated. This was because full-time work was difficult to find, although in some instances participants preferred part-time jobs or staff thought it more appropriate for them.

Phase 3 wages generally paid above the federal minimum. Only 4 percent of participants earned less than $3.35 per hour. The average starting wage was $3.63 per hour, and 34 percent of the participants were paid over $3.50 per hour. Over half of the participants (57 percent) had jobs providing medical benefits, either immediately or after a specified period of time. These benefits were particularly important, given the participants' secondary disabilities.[9]

Available MIS data show that, among participants contacted during the six-month period in Phase 3, the majority were still employed, usually at the same firm or agency.[10] Many had worked for the same employer in Phase 2; as shown in Table 5.3, over 66 percent of the placements were rollovers. These data suggest that a considerable number of participants were able to hold unsubsidized employment for at least several months. Additional data on job retention will be presented in the impact analysis.

IV. Non-Positive Terminations from STETS

While the placement data are encouraging, over half of the participants were not placed into unsubsidized jobs, nor were they linked (directly by STETS) with other educational or training programs (Table 5.5). The analysis considers such terminations to be non-positive; that is, although they were not necessarily negative for the participants, they did not result in competitive employment, the program goal. The reasons given for the terminations suggest that a good many participants had employment problems that could not be overcome, even with program assistance.

Table 5.7 separates out the reasons for termination. It indicates, for example, that only 12 percent of the terminations were caused by the inability of participants to perform assigned tasks adequately. This is consistent with a common finding from the mental retardation literature, which suggests that only a minority of mildly retarded persons lose jobs

TABLE 5.7

PERCENTAGE DISTRIBUTION OF REASONS FOR NON-POSITIVE TERMINATION FROM STETS, BY PROGRAM SITE

Reason	Los Angeles	New York	Cincinnati	St. Paul	Tucson	All Sites
Unable To Perform Job Tasks	0.0	16.1	8.8	25.9	12.5	12.3
Disruptive Behavior, Unsatisfactory Attendance, Personal Problems	13.3	38.7	35.3	33.3	56.3	33.3
Participant Dissatisfied With Program or Intends To Enter Other Educational or Training Program	10.0	3.2	2.9	14.8	12.5	8.0
Personal Health Problems	13.3	12.9	2.9	7.4	6.3	8.7
Moved	6.7	0.0	5.9	3.7	0.0	3.6
Loss of SSI or Other Transfer Benefits	0.0	0.0	5.9	0.0	6.3	2.2
Program Lost Contact With Participant	10.0	0.0	8.8	0.0	0.0	4.3
Death	0.0	0.0	0.0	3.7	6.3	1.4
Other	46.7	29.0	29.4	11.1	0.0	26.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of Enrollees	30	31	34	27	16	138[a]

SOURCE: MDRC tabulations of Monthly Status Change Forms in the STETS Information System.

NOTES: Percentage distributions may not add exactly to 100.0 because of rounding.

[a] Includes all enrollees who were terminated from STETS but not placed into an unsubsidized job or into an educational or training program.

because they cannot adequately perform the tasks involved. Many more terminations (33 percent) were caused by disruptive behavior on the job, unsatisfactory attendance, or personal and family problems. Moreover, 8 percent of the non-positive terminations occurred because participants were dissatisfied with the program or preferred another type of education or training program (although, in these instances, they were not placed in those programs by STETS staff). In a few cases, participants were terminated (by themselves or their families) because they believed they might lose SSI or other income transfer benefits.

Distinctions were not always clear-cut, and many participants left for a combination of reasons. The following description of circumstances leading to the termination of one participant illustrates this point:

> Paul could do a good job for short periods of time but was unable to sustain this over a full day. He was hyperactive and "acted up." He would sometimes yell and pick up chairs. He also started having an attendance problem: Either he wouldn't show up or he would leave in the middle of the day. The STETS staff met with his Vocational Rehabilitation counselor and his mother a number of times about this problem but it didn't seem to help. His mother was concerned, but had no control over him.

Usually non-positive terminations happened fairly soon after program enrollment; 72 percent took place before Phase 2 started.

V. Factors Affecting Placement Outcomes

This section will identify conditions that may have affected placements and contributed to site differences in those rates. First, however, it should be noted that site performance was affected simultaneously by many factors which are difficult to disentangle -- among them, the capabilities of enrollees, training strategies, job development techniques and local economic conditions. Nevertheless, it is possible to identify some that probably played a strong role in the outcomes.

One key constraint was that, given the program's broad eligibility criteria, many participants were not sufficiently capable, prepared or motivated to benefit from it. A second constraint, previously discussed, was the truncation of the program. While the implementation experience was generally positive, it is reasonable to speculate that more participants would have been placed had the program been given time to mature. For example, in the National Supported Work Demonstration, the overall placement rated improved from 24 percent in the first year to 36 percent in the last year. While this may reflect improved economic conditions towards the end of that period, greater staff experience was probably also a factor.

As indicated by the difficulties in St. Paul and Los Angeles, weak job development strategies contributed to lower placement rates at some sites. The poor economic environment was another limiting factor although, as shown by the St. Paul site (where a relatively low unemployment and placement rate both prevailed), a stronger economy did not necessarily guarantee better results.

A number of other factors initially thought to be important turned out not to be very decisive. For example, the use of a Phase 1 sheltered or non-sheltered strategy could have influenced placement rates. As Chapter III has shown, each had advantages and disadvantages, but both appeared to be feasible. The highest placement rates in the demonstration were obtained by Tucson -- which used a sheltered strategy -- and by New York, which took a non-sheltered approach.

The training practices used by a program could also have affected placement outcomes: e.g., the demonstration's 500-hour limit on Phase 1 paid activity. Early in the demonstration, some staff members felt that many participants needed more time in that phase. Their dissatisfaction raised the question of whether placement rates would have risen noticeably if participants had spent more time in initial training activities. By and large, the available evidence does not support such a conclusion. While a short extension of Phase 1 might have changed outcomes for some poorly performing participants, staff believed that most participants probably would not have shown much improvement. As the director of the Cincinnati site remarked, "They'd either be ready in 500 hours or 1,500 hours. Fiddling with a few hundred hours wouldn't make much difference."

Such observations suggest that participants who cannot be ready for Phase 2 in 500 hours may not be appropriate for the quick employment transition specified in the STETS model. A longer Phase 1 would also increase the costs of the program, since Phase 2 has a lower overall level of program services and more private sector coverage of participant wages. Moreover, a longer Phase 1 would have worked against the goal of moving participants expeditiously into higher-stress work positions.

During the planning stages of the demonstration, MDRC was particularly interested in the capacity of the sheltered workshop, affirmative industry and state agency to operate the program adequately. It was thought, for example, that the limited experience of these organizations with job development and outside placement might impede smooth implementation. This, combined with the fact that these organizations had other service commitments (such as longer-term sheltered employment or casework and referral services), raised the question of whether STETS might have to compete for top management attention and access to other organizational resources.

To some extent, problems did arise, particularly in St. Paul. In fact, by the end of the demonstration, that site's director had become fairly pessimistic about the feasibility of jointly operating a sheltered employment and a transitional program "under the same roof." The experience of the Cincinnati site, however, suggests otherwise. The high-quality operation of that program implies that two missions can co-exist if each mission has a strong commitment from the parent organization.

The experience in the Tucson site also shows that multiple organizational goals need not undermine the implementation of a program like STETS. Moreover, Tucson clearly demonstrates that an employment program can be directly operated by a state agency, even when that agency's previous employment approach has generally been to refer mentally retarded persons to other agencies serving this group.

CHAPTER VI

PRELIMINARY FINDINGS FROM THE IMPACT ANALYSIS

I. Introduction

While the analysis in this report has shown that STETS is a feasible program to implement, it cannot be determined whether the program's participants have found more jobs or are better off in terms of other economic and social circumstances than they would have been had they not entered the program. To make that determination, an impact analysis will compare the behavior and experiences of the program's enrollees (the experimental group) to those of a control group, using a longitudinal survey in which both experimentals and controls are interviewed shortly after random assignment, and then at 6, 15 and 22 months after that baseline interview. The overall sample size for the study numbers almost 500 persons, although the six-month survey was administered to a randomly selected subsample comprised of two-thirds of that group.[1]

Because the impact study is still under way, a preliminary analysis has been conducted based on the six-month interviews. This analysis describes the job training, employment and other activities of the two groups at a time when most experimentals were still enrolled in the STETS program, thus providing some initial insight into the patterns of service receipt and labor market behavior of sample members at an early stage in the demonstration. The outcomes of this effort, and a general overview of the impact research design, are the subjects of this chapter.

It is important to emphasize the preliminary nature of this analysis, which has two main limitations even for the estimation of in-program impacts. First, the results are not adjusted statistically to control for any baseline differences between the experimental and control groups. Second, the overall size of this sample -- 267 respondents (131 controls and 136 experimentals) -- is smaller than the six-month sample that will be used in the final analysis. Consequently, the findings presented here may differ from those in the final impact report.[2]

II. Research Design and Data Collection Methodology for the Impact Analysis

STETS impacts will be examined in four main areas: 1) labor market performance (e.g., employment, earnings and job-search activities); 2) participation in education and training programs; 3) use of transfer programs (e.g., participation in SSI and SSDI and the amount of benefits); and 4) social and living skills (e.g., living arrangements, family formation, money-handling skills and travel skills). (For a more detailed description of these variables, see Appendix C.) In this six-month analysis, only a few specific outcome measures have been selected for study: employment status; participation in training or school programs; financial management skills; and receipt of SSI or SSDI.

The data collection strategy posed an initial problem in the impact study. Since a broad range of information on individuals' activities, personal characteristics, living arrangements and social supports is required to address the issues above, it was considered desirable to collect data directly through in-person interviews with sample members. However, because a large sample of retarded persons had never before been as extensively interviewed, there were some initial reservations about the quality and completeness of self-reported data from this population. Not only do the mentally retarded have lower cognitive and verbal communications skills, some individuals have problems comprehending time and money concepts, which are critical in measuring labor market and other variables. Further, given the young age of the STETS group, many have only limited experience in communicating with strangers. Finally, the generally higher incidence of physical and/or emotional problems associated with mental retardation could conceivably create problems in obtaining reliable interview data.

Thus, several possible data sources were considered and tested before the impact research began. In a pilot study conducted with early enrollees in three sites, data from three sources were examined: records kept by the local STETS agency, in-person interviews with the respondent (the mentally retarded sample member), and in-person interviews covering the same topics with a proxy respondent (parent, guardian or counselor).[3]

The pilot study found that a data collection strategy based on self-reported interviews with the STETS sample members was in fact feasible. Completion rates were high for both primary and proxy respondents (at 95 and 99 percent, respectively), but the incidence of missing or incomplete data in the primary interviews was unexpectedly low. In light of these findings, in-person interviews with both the experimental and control groups were selected as the primary source of data, supplemented by proxy interviews when sample members could not provide complete or accurate information. (See Appendix C.)

III. The Six-Month Research Sample

A. Characteristics

The six-month research sample was randomly selected from the full analysis sample, and it appeared to be representative of that larger group. This conclusion is based on a statistical comparison (not included here) of each sample's distribution of baseline characteristics.

Within the six-month sample, 18 percent of respondents were located in Cincinnati, 21 percent in Los Angeles, 26 percent in New York, 12 percent in St. Paul, and 24 percent in Tuscon. (See Table 6.1.) IQ scores fell within the moderate range of retardation for 15 percent of the sample members, within the mild range for 48 percent, and within the borderline range for 36 percent. Males constituted 56 percent of the sample, and the average age at enrollment was 20 years.

Consistent with the rules established for program enrollment, few members in the six-month sample held regular jobs at the time of program application. A large proportion (37 percent) received either Supplementary Security Income (SSI) or Social Security Disability Insurance (SSDI), by far the two most important sources of transfer income. Furthermore, a majority (70 percent) appeared to be lacking financial management skills.

B. Activities of the Six-Month Sample

This section describes and compares the experiences of experimental and control group members on the outcome measures mentioned earlier. The data are analyzed for each group separately and then compared. Data for subgroups -- defined by demonstration site, IQ range, sex and age at baseline -- are analyzed in the final section.

TABLE 6.1

PERCENTAGE DISTRIBUTION OF CHARACTERISTICS OF THE SIX-MONTH ANALYSIS SAMPLE AT BASELINE, BY RESEARCH GROUP

Characteristic	Control Group	Experimental Group	Total
Site			
Los Angeles	19.8	21.3	20.6
New York	26.0	25.7	25.8
Cincinnati	18.3	17.6	18.0
St. Paul	13.0	11.0	12.0
Tucson	22.9	24.3	23.6
Retardation Range			
Borderline	37.4	35.3	36.3
Mild	46.6	50.0	48.3
Moderate	16.0	14.7	15.4
Sex			
Male	58.0	53.7	55.8
Female	42.0	46.3	44.2
Age			
Under 22 Years	71.0	58.1	64.4
22 Years and Over	29.0	41.9	35.6
Baseline Financial Management Skills			
Not Independent	70.2	70.6	70.4
Independent	29.8	29.4	29.6
Baseline Receipt of SSI or SSDI			
Did Not Receive	61.7	64.3	63.1
Did Receive	38.3	35.7	36.9
Sample Size[a]	131	136	267

SOURCE: Baseline and six-month surveys of the STETS impact analysis, administered by Mathematica Policy Research from December 1981 through February 1983, and April 1982 through June 1983, respectively.

NOTES: The six-month sample is comprised of two-thirds of the full research sample for the impact analysis.

Percentage distributions may not add up to 100.0 due to rounding.

[a] Sample sizes for receipt of SSI/SSDI are 115, 126, and 241, respectively.

1. Activities of the Control Group Sample

Labor Market Activities. The control group sample was fairly active at the six-month point: As shown in the first column of Table 6.2, over two-thirds reported some form of activity related to a job, training or to school. Nearly half (48 percent) reported working in a job for which they were paid. (About 21 percent held a paid job as part of a training or school program, 14 percent had a paid job in a workshop or an activity center, and 13 percent reported that they were employed in a regular job.) While paid jobholders in the control group worked an average of 27 hours a week (Table 6.3), over one-third (37 percent) worked full-time, which is defined as over 32 hours per week.

The average earnings per week (of those employed) was $56, for an average hourly wage rate of $2.07. While average hours worked was similar in all three categories of paid jobs, earnings and estimated wage rates followed an expected pattern. Regular (or non-training) jobs paid the highest wages; workshop and activity center jobs paid the lowest.

Slightly over 8 percent of the control group sample reported that they were working but not receiving pay; 2 percent said they were not working, but were taking part in a training program; and almost 10 percent reported that they were not working but attending school (Table 6.2). A fairly large number of controls were inactive six months after random assignment: 31 percent reported no job, school or training activities at that time.

Independence Measures. Variables measuring the independence of sample members have also been examined. Financial management skills, as reflected in responses to several different interview questions, were exhibited by 28 percent of the control sample members at the time of the

TABLE 6.2

SAMPLE MEMBERS' ACTIVITIES AT SIX MONTHS AFTER BASELINE, BY RESEARCH GROUP

Activity	Control Group	Experimental Group	Difference	Percent Change
Any Paid Job (%)	48.1	68.4	20.3**	42.2
Regular Job[a]	13.0	11.0	-2.0	-15.4
Training or School Job	21.4	50.7	29.3**	136.9
Workshop or Activity Center	13.7	6.6	-7.1*	-51.8
Unpaid Job (%)	8.4	2.2	-6.2**	-73.8
Training with No Job (%)	2.3	5.9	3.6	146.5
School with No Job (%)	9.9	2.9	-7.0**	-70.7
Inactive: No Job, Training, or School(%)	31.3	20.6	-10.7**	-34.2
Any Job Training (%)	40.0	61.8	21.8**	54.5
Any School (%)	19.8	7.4	-12.4**	-62.6
Financial Management Skills (%)	28.2	37.5	9.3	33.0
Receipt of SSI or SSDI (%)	30.2	27.9	-2.3	-7.6
Average Monthly Amount of SSI or SSDI for Those Who Received Benefits ($)	251	260	9	3.6

SOURCE: Six-month follow-up survey of the STETS impact analysis, administered by Mathematica Policy Research from April 1982 through June 1983.

NOTES: The sample size for this analysis is 131 for the control group and 136 for the experimental group.

[a] Regular jobs include all paid jobs of over 4 hours per week which are not specified as training or school jobs or in workshops or activity centers. See Appendix C for a complete description of how the outcome measures were defined.

*Statistically significant at the 10 percent level.

**Statistically significant at the 5 percent level.

TABLE 6.3

CHARACTERISTICS OF SAMPLE MEMBERS' JOBS AT SIX MONTHS AFTER BASELINE, BY TYPE OF JOB AND RESEARCH GROUP

Type of Job and Characteristic	Control Group	Experimental Group	Difference	Percent Change
Any Paid Job				
Average Hours Per Week	26.8	29.6	2.8*	10.4
Average Earnings Per Week ($)	55.55	76.54	20.99**	37.8
Average Wage Per Hour ($)[a]	2.07	2.59	0.52	25.1
Sample Size	63	93		
Regular Job[a]				
Hours	27.3	34.6	7.3**	26.7
Earnings ($)	88.13	108.26	20.13	22.8
Wage Rate ($)	3.23	3.13	-0.10	-0.0
Sample Size	17	15		
Training Job				
Hours	25.3	28.8	3.5	13.8
Earnings ($)	55.26	73.86	18.60**	33.7
Wage Rate ($)	2.18	2.56	0.38	17.4
Sample Size	28	69		
Workshop or Activity Center				
Hours	28.7	26.9	-1.8	-0.1
Earnings ($)	25.24	44.21	18.97**	75.2
Wage Rate ($)	0.88	1.64	0.76	86.4
Sample Size	18	9		

SOURCE: Six-Month follow-up survey of the STETS impact analysis, administered by Mathematica Policy Research from April 1982 through January 1983.

NOTES: Table includes only sample members who reported working for pay.

[a] Average wage per hour is calculated directly from average earnings and hours per week; no significance tests were computed.

[b] Regular jobs include all paid jobs of over 4 hours per week which are not specified as training or school jobs or in workshops or activity centers. See Appendix C for a complete description of how the outcome measures were defined.

*Statistically significant at the 10 percent level.

**Statistically significant at the 5 percent level.

six-month interview. However, 30 percent of the sample received assistance from SSI or SSDI. The average monthly SSI and SSDI benefits paid to control group members was $251.

2. Activities of the Experimental Group at Six Months

Labor Market Activities. As shown in the second column of Table 6.2, almost 80 percent of the experimental group members were active at the six-month point. Over 68 percent of the sample had a paying job. Over half of the sample held paid jobs in training programs, 11 percent had regular (non-training) jobs, and only 7 percent reported positions in workshops or activity centers.

As shown in the second column of Table 6.3, jobholders in the experimental group worked an average of almost 30 hours per week (one-half worked full-time), with average weekly earnings of $77. The hourly wage rate was $2.59.

From Table 6.2, it can be seen that very few of the experimental group (2 percent) reported that they were working for no pay. Almost 6 percent said they were not working, but were participating in training programs, and 3 percent reported that they were not working but attending school. Thus, only one-fifth of the treatment group sample was inactive six months after random assignment.

Independence Measures. Evidence of financial management skills was exhibited by over one-third (38 percent) of the experimental group. Receipt of benefits from either the SSI or SSDI program was reported by 28 percent of the members. The average monthly amount of combined benefits for those receiving the payments was $260.

3. Comparison of Experimental and Control Group Activities

Labor Market Activities. As seen in Table 6.2, 31 percent of the control group compared to almost 21 percent of the experimentals were inactive (i.e., not engaged in a job, training or school program), representing a reduction of 34 percent. Put another way, the employment and training activity level of the experimental group was over 10 percentage points higher than that of the control group.

An even greater distinction can be seen in the distribution of activities between the two groups. The most substantial difference was in the proportion holding a paid job as part of a training program: The experimental rate was higher than that of the control group by 29 percentage points (an increase of 137 percent), undoubtedly reflecting this group's enrollment in STETS at the six-month point. This group's workshop participation was also influenced by STETS because of the sheltered Phase 1 training approach used in St. Paul, Cincinnati and Tucson. The experimental rate of workshop activity was, however, considerably lower than that of the control group.

Offsetting these training-related differences are notably lower experimental group participation rates in unpaid jobs and in school, and a slightly lower rate of employment in regular jobs; the latter activity was largely precluded by the continued participation of STETS participants in the program at six months after enrollment. However, when all paid employment is considered, experimental group members worked 10 percent more hours and earned 38 percent more dollars a week than the control group (Table 6.3). Moreover, full-time work (i.e., over 32 hours per week) increased by over 38 percent.[4]

Independence Measures. Financial management skills were demonstrated by more members of the experimental group than the control group (a difference of 9 percentage points, or an increase of 33 percent). This difference may reflect in part the greater opportunity of this group to use money-handling skills because of a higher incidence of paid jobs. (While this difference was not estimated to be significant at commonly accepted levels of statistical confidence, this could be the result of the previously described estimation deficiences of this preliminary analysis.)

A smaller proportion of the experimental group received SSI and SSDI benefits. However, this does not mean that STETS participation caused a decline in the use of these programs; a similar difference was apparent at random assignment. (This factor will be controlled statistically in the final report when more follow-up data are available.)

C. Differences in Outcomes by Subgroups

A thorough examination of outcomes by subgroups requires statistical techniques that can isolate the independent effects associated with subgroup attributes. This will be done in the final report. The discussion here is confined to simple cross-tabulations of outcomes and background variables and, consequently, the results are preliminary. Additionally, because of small sample sizes and a certain amount of interdependence among groups, it is important to remember that trends may change considerably as more and longer follow-up data become available.

Tables 6.4 and 6.5 show the distribution of outcomes by subgroup as defined by site, IQ range, sex and age. The results are presented separately for the control and experimental groups.

1. Demonstration Site. While it is not possible to assess the

TABLE 6.4

ACTIVITIES OF CONTROL GROUP AT SIX MONTHS AFTER BASELINE, BY SUBGROUP

Subgroup	Any Paid Job	Regular Job[a]	Workshop or Activity Center Jobs	No Job, Training, or School	Financial Management Skills	Receipt of SSI or SSDI
Site (%)						
Los Angeles	38.5	7.7	23.1	26.9	19.2	26.9
New York	52.9	17.6	8.8	23.5	26.5	24.2
Cincinnati	41.7	12.5	8.3	41.7	25.0	25.0
St. Paul	58.8	0.0	11.8	29.4	41.2	6.3
Tucson	50.0	20.0	16.7	36.7	33.3	56.7
Retardation Range (%)						
Borderline	46.9	22.4	6.1	30.6	40.8	18.4
Mild	45.1	6.6	13.1	29.5	24.6	32.2
Moderate	57.1	0.0	33.3	38.1	9.5	52.4
Sex (%)						
Male	44.7	14.5	13.2	30.3	31.6	30.7
Female	52.7	10.9	14.5	32.7	23.6	29.6
Age (%)						
Under 22 Years	41.9	12.9	6.5	35.5	28.0	27.2
22 Years and Over	63.2	13.2	31.6	21.1	28.9	37.8

SOURCE: Six-Month follow-up survey of the STETS impact analysis, administered by Mathematica Policy Research from April 1982 through June 1983.

NOTES: Sample size is 131.

[a] Regular jobs include all paid jobs of over 4 hours per week which are not specified as training or school jobs or in workshops or activity centers. See Appendix C for a complete description of how the outcome measures were defined.

TABLE 6.5

ACTIVITIES OF EXPERIMENTAL GROUP AT SIX MONTHS AFTER BASELINE, BY SUBGROUP

Subgroup	Any Paid Job	Regular Job[a]	Workshop or Activity Center Job	No Job, Training, or School	Financial Management Skills	Receipt of SSI or SSDI
Site (%)						
Los Angeles	44.8	17.2	3.4	37.9	37.9	41.4
New York	74.3	2.9	0.0	14.3	37.1	11.4
Cincinnati	50.0	12.5	16.7	29.2	45.8	12.5
St. Paul	73.3	26.7	13.3	26.7	46.7	13.3
Tucson	93.9	6.1	6.1	3.0	27.3	51.5
IQ Range (%)						
Borderline	68.8	18.8	2.1	20.8	47.9	12.5
Mild	69.1	8.8	10.3	20.6	33.8	32.4
Moderate	65.0	0.0	5.0	20.0	25.0	50.0
Sex (%)						
Male	69.9	17.8	9.6	16.4	41.1	26.0
Female	66.7	3.2	3.2	25.4	33.3	30.2
Age (%)						
Under 22 Years	65.8	11.4	2.5	19.0	34.2	17.7
22 Years and Over	71.9	10.5	12.3	22.8	42.1	42.1

SOURCE: Six-Month follow-up survey of the STETS impact analysis, administered by Mathematica Policy Research from April 1982 through June 1983.

NOTES: Sample size is 136.

[a] Regular jobs include all paid jobs of over 4 hours per week which are not specified as training or school jobs or in workshops or activity centers. See Appendix C for a complete description of how the outcome measures were defined.

relative impact of each site with the data currently available, it is notable that intersite variations on several outcome measures are considerable within both the experimental and control groups. Among controls, for example, the proportion of respondents who were not in a job, training program or school at the six-month point ranged from a low of 24 percent in New York to a high of 42 percent in Cincinnati. The proportion of such clients in the experimental group covered a much wider range: from 3 percent in Tucson to 38 percent in Los Angeles. It is interesting to note that Los Angeles was the only site where more experimentals than controls were inactive at the six-month point.

The proportion of respondents holding a regular job also varied considerably by site. Within the control group, none of the respondents in St. Paul held such positions, while, at the other extreme, 20 percent of those in Tucson were in regular jobs. Large variations similarly existed within the experimental group. However, since many experimentals were still enrolled in the STETS program, it cannot be concluded that the sites with smaller proportions of regular job holders were performing less well than the others.

2. Level of Retardation. In the control group, the level of retardation was related to the kind of paid job that a person held. Members in the borderline range were most likely to be in regular jobs and least likely to work in sheltered workshop positions; those in the mild range usually held training jobs rather than regular and workshop jobs; and those in the moderate range were most likely to have workshop jobs and not regular jobs. Moderately retarded persons were also most likely to be inactive; 38 percent reported no job, training or school activity.

In contrast, patterns of labor market activity in the experimental group were quite similar across retardation categories. From 65 to 69 percent of respondents in each category held a paid job. Similarly, about 20 percent of the experimentals in each range were inactive.

The absence of such sharp distinctions in the experimental group may reflect the more even treatment provided by the STETS program to members with different levels of retardation, a practice not so evident in the services received by control group members. This evenness may also have contributed to the lower variation in financial management skills across retardation levels of the experimental group. Among controls, these skills varied more widely, in large part because the proportion of moderately retarded persons demonstrating such skills was so low (10 percent).

Finally, within both samples, there was a strong negative correlation between retardation level and receipt of SSI and SSDI benefits. As a rule, the relationship is inherent in the eligibility criteria of the two programs and is unlikely to be affected by only six months of STETS participation.

3. Sex. On the whole, sex-based differences in activities at six months appeared to be greater for the experimental group than for the control group. For example, in contrast to males in the control group, males in the experimental group were notably more likely than females to have been in regular or workshop jobs, and they were less likely to have reported not being in any job, school or training activity.

This pattern is reversed, however, for the "any paid job" variable. Here the control group registered a greater variation between sexes, with 53 percent of the females, compared to 45 percent of the males, reporting such positions. Unfortunately, the reasons for these patterns are not clear at this point. However, they do suggest that an important question in the final impact analysis will be whether STETS was more effective for one sex than the other.

4. Age. Age was another variable related to activity patterns at the time of the six-month interview. Like level of retardation, it was more strongly related to the probability of controls being inactive than was true for the experimental group. Among controls, 36 percent of respondents who were under 22 years of age at the time of the follow-up interview reported having no job, training program or schooling activity, compared to only 21 percent of those who were age 22 or older. Among experimentals, however, the older group was more likely to be inactive compared to the younger group, although this difference was not large (23 versus 19 percent). It is also interesting to note that, among controls, the greater activity of the older group is largely accounted for by their higher rates of participation in workshops and activity centers.

There was also a positive correlation between age and the receipt of SSI and SSDI benefits. Older control group members were more likely than younger members to receive these benefits (38 percent versus 27 percent). This dependence was much more apparent in the experimental sample, with 42 percent of the older group receiving payments compared to just 18 percent of the younger group.

It is important to re-emphasize the preliminary nature of these findings. Some of the trends observed here will be explored further in the final impact report, where a larger sample, longer follow-up and more sophisticated statistical techniques will allow for more complete and precise estimates to be made of the effectiveness of STETS.

CHAPTER VII

PROGRAM OPERATING COSTS

In a judgment about the effectiveness of STETS, the costs of the program and how they compare with the benefits are important factors. The program's evaluation plan therefore incorporates a comprehensive benefit-cost analysis, with results to be presented, along with the impact analysis, in a later report. At this point, however, it is possible only to make some initial estimates of costs, and to present some preliminary findings from one component of that analysis, in which an assessment is made of the value of output (goods and services) produced by participants while they were still in the program. These, along with the framework of the benefit-cost analysis, are the concerns of the present chapter.

I. Site Operating Costs

The concepts, assumptions and data on which cost estimates are based are discussed first in this section. Cost data were reported by the local sites on a monthly basis, using standardized fiscal forms designed by MDRC. These forms required that program expenses be separated into several major categories:

> Participant Compensation, which refers to payments made to participants while they were in Phase 1 or 2.
>
> Program Management, which is a very broad category that encompasses general operational overhead, program planning, job development, information system management and fiscal accounting.
>
> Worksite and Skills Training, which refers to the costs incurred by the program in providing job training and worksite supervision to STETS clients. (This does not include any of

the costs borne by the outside employer in providing such services.)

Client Services, which encompass a variety of support services intended to help clients overcome a range of obstacles to employment. Such services included individual and group counseling, travel training, job matching, and vocational needs assessment. Most of these were provided directly by the program, but some were purchased from other local agencies.

In practice, the distinctions between the last two categories proved to be somewhat obscure. Sites often had difficulty separating training from counseling services when reporting expenses, largely because training strategies generally entailed counseling on work-related problems and performance, often at the worksite. The New York site, for example, reported zero expenses under the client services category, even though work-related counseling was provided frequently. Consequently, for the discussion in this chapter, the expenses reported in the two categories of "training" and "client services" have been combined.

Sites were also required to report funding sources, including local and national grants from government and private agencies, contributions from their sponsoring agencies, and "service project revenue," which refers to income generated by participants during their tenure in the program. In those sites using the sheltered model for Phase 1, service project revenue encompassed all receipts from the sale of goods and services produced by STETS participants in their workshop jobs. For sites using the Phase 1 non-sheltered model and for all sites in Phase 2, it covered any employer reimbursements made to STETS in return for participants' labor. In addition to these sources of revenue, all sites reported any wages paid directly to participants by employers.

An important aspect of the cost analysis is its focus on a segment of calendar time -- the "steady-state" period -- within the overall demonstration period. The steady-state period is that segment of time during which program operations most reflected the intensity, scale and efficiency that could be expected during a stable period of operations in a replicated program. Because start-up costs for any program are usually much higher than the costs of ongoing operations, estimates of normal operating costs would be distorted if those early expenses were counted. Similarly, the costs of closing a program down are likely to be atypical. Hence, only the costs incurred during the steady-state period are analyzed here.

In theory, a steady-state period begins at the end of start-up and continues until the beginning of phase-down. In STETS, however, the relatively short time of the demonstration constrained sites from ever reaching a mature state of operations. Within approximately eight months after random assignment began, intake was sharply curtailed because the sites had been informed that national funding could not be guaranteed past December 1982. While funds eventually did become available to continue the project for another year, activities had to be phased down over that period of time. Consequently, it is difficult to identify a "true" steady-state period for STETS. (It is instructive to note that, in the National Supported Work Demonstration, the third year of program operations was defined as the steady-state period, while the first two years were viewed as start-up. See Kemper, Long and Thornton, 1981.)

Thus, while a "true" steady-state period cannot be identified for STETS, it is possible to specify several months for each site during which activities were fairly stable and a relatively high number of participants were actively served: March-July 1982 for New York, July-November 1982 for

Los Angeles, May-September 1982 for Cincinnati, June-October 1982 for St. Paul, and May-September 1982 for Tucson.[1] For the cost calculations presented in this chapter, these periods, taken together, are defined as the steady-state period for the demonstration as a whole. While these periods do not represent a mature phase of operations for any site, they do at least exclude the months during which start-up problems were greatest and those when the curtailment of program services was fully under way.

Costs have been estimated in terms of several different units to provide alternative perspectives on the level of resources required to operate the program. For each of these measures, the calculations use data from the steady-state period only, and focus on the time that participants were enrolled in STETS.[2] However, the estimates do not include expenses incurred by the sites for research-related activities that would not normally be undertaken,[3] nor do they include the central administrative costs incurred by MDRC to monitor and assist the sites. No adjustments were made for inflation or for differences in general salary or price levels across the demonstration cities.

The following types of unit costs have been estimated. Net Cost Per Service Year represents the cost of serving one participant for one year, regardless of how long participants, on average, actually stayed in the program. This figure excludes service project revenue (that is, program income from participants' labor). The focus on a year of service makes it possible to estimate the likely expense of operating a STETS program for one year with a specified number of slots. Net Cost Per Participant is the average cost of serving an individual participant. This estimate is adjusted for the average length of time that participants were enrolled in the program.[4]

Table 7.1 shows the estimates for each of these unit costs for the steady-state period. For the demonstration as a whole, the net operating cost per service year was $8,715. Because most participants did not stay in the program for a full year, the average cost of serving each client, $7,553, was lower.

In addition, a second set of estimates -- again, one per participant and another per service year -- was made. These estimates add to the previous cost figures both the wages paid directly by employers to participants and service project revenue. They illustrate what the costs of the program would have been if the program had not been able to find any employers to pay participants and if participants had not produced goods and services with value. Table 7.1 shows that the average cost of the program per year under these circumstances would have increased by 15 percent (from $8,715 to $10,021).[5] Similarly, the cost per participant would have increased by 15 percent. These calculations demonstrate the utility of the program's generating employer payments and service project revenue as a way of containing costs.

To put the costs into some perspective, it is useful to compare them to the costs of other employment programs for retarded persons. This is difficult, however, for the same reason that it was difficult to compare placement rates across programs. (See Chapter V.) Because published cost data, like placement data, are scarce and because the methodologies used to calculate costs vary across programs, comparisons with other programs must be made with caution.

With these limitations in mind, the costs of several other employment

TABLE 7.1

AVERAGE UNIT COSTS OF OPERATING STETS DURING THE STEADY-STATE PERIOD, BY PROGRAM SITE

Site	Net Cost Per Service Year[a]	Net Cost Per Participant[b]	Net Cost Plus SPR[c] and Employer Payments,[d] Per Service Year	Net Cost Plus SPR[c] and Employer Payments,[d] Per Participant
Los Angeles	$8,743	$7,286	$10,387	$8,656
New York	11,467	9,651	11,778	9,913
Cincinnati	10,311	8,420	12,169	9,938
St. Paul	5,411	4,283	7,604	6,020
Tucson	6,724	7,060	7,708	8,094
All Sites	8,715	7,553	10,021	8,685

SOURCE: MDRC tabulations of sites' monthly Combined Operating Reports.

NOTES: Site costs are based on five months of steady-state operations during 1982. Actual dates vary by site. Research-related expenses are not included.

[a] Net cost per service year is the average cost of serving one participant for one year, net of service project revenue.

[b] Net cost per participant is the average cost of serving one participant for the average length of enrollment in the program, net of service project revenue.

[c] "SPR" refers to service project revenue.

[d] "Employer payments" are wages paid directly to participants by employers.

and training programs can be used as a rough guide for assessing the relative magnitude of the STETS costs. As Table 7.2 shows, the service year cost of STETS appears to be somewhat higher than the costs incurred by sheltered workshops serving mildly and moderately retarded persons. However, the cost of STETS per participant may be lower than that of many workshops because the average participant time in the STETS program is shorter. (See Chapters III and V.)

The STETS service year cost was lower than a year in the Job Corps, an intensive residential employment program for disadvantaged youths which, in an evaluation conducted by Mathematica Policy Research (Mallar et al., 1982), showed a positive benefit-cost outcome. When per participant costs are considered, however, Job Corps and STETS are roughly comparable. Finally, the STETS service year and per participant costs appear to be close to those of other transitional employment programs for the mentally retarded.

Within the STETS demonstration, the cost of operating the program varied substantially across the sites (Table 7.1). New York and Cincinnati were the most expensive programs (net costs per service year were $11,467 and $10,311, respectively), while Tucson and St. Paul cost the least to run (net costs per service year of $6,724 and $5,411). Nevertheless, it is interesting to note that one major difference across sites -- the use of a sheltered versus a non-sheltered Phase 1 approach -- did not consistently predict the level of costs. For example, Cincinnati's net cost per service year was fairly close to New York's.[6]

The lower costs of the St. Paul and Tucson projects are particularly notable. In St. Paul, this resulted in part from a fairly high level of

TABLE 7.2

ESTIMATED AVERAGE OPERATING COSTS FOR SELECTED EMPLOYMENT AND TRAINING PROGRAMS (FISCAL YEAR 1982 DOLLARS)

Program	Average Cost Per Service Year	Average Cost Per Participant
STETS[1/a]	$8,715	$7,550
Sheltered Workshops[2/b]	4,000-6,000	--[c]
Project Employability[3/d]	--[c]	6,000
Employment Training Program[4/d]	8,170	--[c]
University of Washington Food Service Project[5/d]	10,960	9,750
Job Corps[6/d]	15,580	7,920

SOURCES: 1. Table 7.1.

2. Personal communication with officials in public agencies in several STETS sites.

3. Mark Hill and Paul Wehman. "Cost Benefit Analysis of Placing Moderately and Severely Handicapped Individuals into Competitive Employment." The Journal of the Association for the Severely Handicapped, Vol. 8, 1983, pp. 30-38.

4. Ken Schneider, Frank Rusch, Robert Henderson and Terry Geske. "Competitive Employment for Mentally Retarded Persons: Costs Versus Benefits." Unpublished paper, University of Illinois at Urbana-Champaign, 1982.

5. James Moss. "Postsecondary Vocational Education for Mentally Retarded Adults." Reston, VA: ERIC Clearinghouse on Handicapped and Gifted Children, 1980.

6. Robert Taggart. A Fisherman's Guide: An Assessment of Training and Remediation Strategies. Kalamazoo, MI: UpJohn Institute for Employment Research, 1981.

NOTES: Project Employability is a transitional employment program for mildly, moderately and severely retarded persons operated out of Virginia Commonwealth University. The Employment Training Project is a

(continued)

TABLE 7.2 (continued)

transitional employment program for mentally retarded persons operated out of the University of Illinois, Urbana-Champaign. The University of Washington Food Service Project is an employment program to prepare mildly and moderately retarded persons for jobs in the food service field. Job Corps is an intensive residential training program for disadvantaged youths.

Different methodologies were used in estimating the costs for these programs. Caution should therefore be exercised in comparing programs.

Estimates are expressed in Fiscal Year 1982 dollars. Adjustments have been made using the change in the implicit price deflator for gross national product.

[a] STETS costs are net of service project revenue.

[b] Estimates are based on costs for serving individuals in the mild to moderate range of retardation. Costs may vary considerably depending on the locality of the workshop and the level of services provided.

[c] Not available.

direct employer payments to participants. Because most Phase 2 participants in these sites were in unsubsidized training positions, the total amount of participant compensation that had to be paid by the program was lessened. Additionally, during Phase 1, St. Paul (in contrast to the other sites) was allowed to pay piece rates to participants. These wages, between $1 and $2 per hour, resulted in savings of roughly $500 to $1,000 per participant. Also relevant was the understaffed job development effort during much of the demonstration period, which reduced salary expenses.

The reasons for the relatively lower net cost per service year in Tucson are less clear but may, to an important extent, reflect lower staff salaries at that site. It should be noted, however, that Tucson's per participant cost is close to the average for all sites. It appears that lower staff salaries and other fiscal advantages in Tucson were offset by a higher average length of participant stay.

Table 7.3 shows the allocation of net operating costs across the three major cost categories of the sites' budgets. The largest share (37 percent) is accounted for by "program management and job development," but roughly equal amounts were spent on "client training and services" and "participant compensation" (31 and 32 percent, respectively). It is important to stress that the broad definitions of the first two categories make it difficult to isolate precisely the level of resources devoted to client training and support services. Many staff activities encompassed by program management and job development could by other definitions be viewed as training efforts. For example, high-level staff members, in addition to their administrative and management responsibilities, often assisted other staff members in providing direct services -- helping to counsel clients,

TABLE 7.3

PERCENTAGE DISTRIBUTION OF NET OPERATING COSTS DURING THE STEADY-STATE PERIOD, BY BUDGET CATEGORY AND PROGRAM SITE

Site	Program Management and Job Development	Client Training and Services	Participant Compensation	Total
Los Angeles	36.8	25.5	37.6	100.0
New York	43.5	18.2	38.3	100.0
Cincinnati	22.1	50.7	27.2	100.0
St. Paul	45.3	37.8	16.9	100.0
Tucson	37.6	35.1	27.3	100.0
All Sites	36.8	31.3	32.0	100.0

SOURCE: MDRC tabulations of sites' monthly Combined Operating Reports.

NOTE: Site costs are based on five months of steady-state operations during 1982. Actual dates vary by site. Costs are net of service project revenue and exclude research-related expenses.

assess their employment difficulties, design their training plans and select appropriate job placements.

This blurring of functions is an important issue, given the recent thrust of federal funding for employment and training programs. The Job Training Partnership Act (JTPA), which is currently the dominant source of national funding for employment and training activities and potentially a major resource for future STETS efforts, generally requires that 70 percent of JTPA funds be allocated to "training" (as this category is defined in the legislation) and that only 30 percent be spent on administration and support services. However, the definition of "training" in the JTPA regulations would include a portion of the expenses in the STETS category of "program management and job development." Thus, it should be possible to replicate STETS using JTPA funds, but probably only in conjunction with revenues from other funding sources.

II. Analytical Framework for the Benefit-Cost Analysis

As mentioned earlier, Mathematica Policy Research is conducting a study that will examine how the costs of STETS compare with the economic benefits it generates. It is only possible at this point to describe some of the main features of the analysis and to provide estimates on one important component: the value of output.

In general, benefit-cost analyses address two types of questions about program evaluation: Is the program economically efficient? Is it equitable? The question of efficiency concerns the effect of a program on the total value of the goods and services available to society. The equity issue concerns the distribution of goods and services among groups in society, how the program affects that distribution, and whether a specific group benefits or loses. Benefit-cost analyses do not, however, provide a value judgment on whether any particular change in the distribution of resources is desirable; they can only describe the nature and extent of the redistribution.

Further, some of the benefits produced by the program may be intangible or difficult to measure. For example, as participants become competitively employed and part of the mainstream, the program may lead to improvements in their psychological well-being and perhaps that of other members of their families. While such benefits are difficult to quantify, they should be taken into consideration in making decisions about program replication.

The benefit-cost analysis is also limited by the inherent difficulty of projecting the effects of STETS in economic circumstances different from those at the time of the study and under different program designs with varying implementation strategies. Nevertheless, the findings from this analysis will provide much useful information for assessing the merits of STETS.

The assessment by Mathematica Policy Research of program benefits and costs will be carried out from three perspectives: that of participants, that of other members of society (whose taxes pay for the program), and that of both groups combined. From the participant perspective, it is important to know whether any increase in employment, earnings and independence outweighs the potential loss of transfer benefits (such as SSI) and exceeds any other costs incurred because of participation. From the non-participant perspective, it is important to determine whether the taxes eventually paid by participants and any reduction in their use of other publicly supported services are of sufficient magnitude to preclude the need for a net taxpayer subsidy to the program. Finally, from the social perspective, it is important to assess the program's overall effect on the value of the goods and services available to society as a whole.[7]

The potential benefits of STETS can be grouped into five categories: output produced by participants after they left STETS; participants' reduced use of publicly-funded programs other than STETS; participants moving to lower-cost and more independent residential situations; participants' reduced reliance on transfer programs; and other (unmeasured) benefits.

Site costs can be grouped into four categories: operations, central administration, participant labor, and work-related expenses. An additional program-related expense is the cost of central oversight -- i.e., the activities necessary to administer the contracts with STETS sites and to monitor the program at the demonstration-wide level. In the demonstration, MDRC performed these functions. In an ongoing program, these costs would be incurred by the state or federal agencies responsible for funding the local programs. For example, a state Department of Vocational Rehabilitation purchasing STETS-type services from a site would incur monitoring costs. Alternatively, if a program were funded directly by state or federal agencies, such as CETA or JTPA, the central funding agencies would incur these costs.

III. The Value of In-Program Output

The value of goods and services produced by participants in an employment program can substantially offset its costs. One measure of the value of this output is the combined value of service project revenue and wages paid directly by employers to participants. Measuring this revenue provides a reasonable estimate of the value of in-program output, and because it can be derived with relative ease, it can be incorporated into estimates of net operating costs when budgets are planned or evaluated.

However, the resulting estimate is likely to fall in the lower part of a range. Presumably, employers will not pay more for a product (participant labor service) than it is worth to them; they may, however, pay less.[8] This latter possibility might have held true in STETS, partly because the sites, in negotiating with employers, did not focus on maximizing participants′ wages beyond the minimum wage level; rather, their priority was employment.

An alternative method for estimating the value of in-program output is to use data collected in a series of work activity case studies. For STETS, such studies were conducted on the output produced by 40 randomly selected participants. For each person, two estimates were made of the value of the output they produced during a two-week reference period.[9] One estimate was based on the alternative supplier′s price of the participant output -- that is, the alternative labor cost of producing that output. This estimate assumes that employers could obtain additional labor at the wages paid to their regular employees, and it ignores all additional costs that may have been imposed on the employers by the use of the labor of STETS participants. The second estimate attempts to deduct these additional costs. It estimates the net value of the participant to the employer and subtracts the costs of extra employer-provided supervision and the reduced output from other workers, which are both factors that may result from using STETS labor.

The net value differs from the supply price for a number of reasons. The participant's disability may require supervision or training. For example, one firm using a participant to clean its offices received very little net value, even though the participant performed good work at a productive pace; that firm provided considerable training and was unwilling to scale back its purchase of alternative cleaning services until it could dispense with these services altogether. In another case, the clerical staff "donated" their simplest jobs to the participant -- photocopying, mailing and answering the telephone during employee breaks. The work performed by this participant was both useful and necessary, but resulted in reduced efforts by other employees.

Both the supply price and the net value of participant output estimates are useful indices of the value of in-program output. They are based on careful, systematic interviews conducted in person with participants' supervisors. Whenever possible, actual wage, fringe benefit and production records were consulted. Given an estimated average length of active participation of five months in Phase 1 and six months in Phase 2, the supply price estimates indicate that, on average, participants produced output worth approximately $1,400 during active Phase 1 participation and $3,800 during active Phase 2 time. If the net value of participant output estimate is used, the Phase 1 value would be approximately $1,200 during active participation, and the Phase 2 value would be $2,700.

These estimates indicate that participants' in-program output was an important offset to program costs. Moreover, the Phase 2 estimates lend credence to the fairly positive ratings of participants' work performance measured by the employer survey. (See Chapter V.) Both sets of findings suggest that, on the whole, the productivity of STETS participants was not inconsequential.

CHAPTER VIII

LESSONS FROM THE IMPLEMENTATION OF STETS

This report has described and assessed the ways in which five demonstration sites implemented the STETS demonstration. It has also examined the costs of operating STETS and some of the early findings from the impact analysis.

It was noted at the outset that the demonstration lasted for a relatively brief period, much of it marked by funding uncertainty. Nevertheless, a good deal has been learned about the program, and many of these lessons should be useful to policymakers and program planners as they decide whether or how to replicate the STETS approach.

The most general conclusion of this report is that the model is a feasible one and can be operated on a fairly large scale by different types of organizations using diverse approaches. The sites have shown that, with varying degrees of success, they could recruit participants, develop training positions for them in real work settings, provide them with helpful support services, and channel many of them into unsubsidized jobs. Given the difficulties faced by the target population, the demonstration-wide placement rate of about 42 percent is an impressive outcome. During the demonstration, the average public cost of operating STETS was $8,715 per service year and $7,553 per participant.

Because of the population it serves, operating STETS can pose a substantial implementation challenge. This chapter focuses on specific lessons learned as sites attempted to meet that challenge.

I. Recruitment and Referral

The sites' recruitment experiences reveal that the program -- and the prospect of competitive employment -- generally had a strong appeal for the population of retarded persons it was intended to serve. Moreover, other organizations serving the mentally retarded found a similar promise in STETS. Despite random assignment and the other research demands of the demonstration, many of these organizations were willing to refer clients to the program.

Within the eligibility guidelines, the sites were able to recruit a group of individuals who were fairly diverse in sex, race, presence of secondary handicaps, and receipt of SSI and SSDI benefits. Across the demonstration, 50 percent of enrollees were classified as mildly retarded, while 38 percent fell in the borderline range. Thirteen percent were moderately retarded.

There were several reasons for the smaller proportion of lower-functioning participants. First, the fact that fewer people in the general population are moderately retarded than are mildly or borderline retarded meant that proportionately fewer were available for referral. It also appeared that some agencies hesitated to refer more severely retarded persons before seeing how well their higher-functioning clients would fare in the program. Some lower-functioning individuals may have also been deterred from participating because of a possible loss of SSI or SSDI benefits.

Tucson and Cincinnati were fairly successful in enrolling moderately retarded persons. This was facilitated in part by their previous strong connections to other agencies serving lower-functioning persons.

Elsewhere, these linkages had to be newly formed, or at least more fully developed -- not an easy task, given the short duration of the demonstration.

Although the program enrolled a sizable number of participants overall, the referral problems at two sites in the early part of the demonstration, and the difficulty in recruiting lower-functioning persons, attest to the challenge of recruitment. Careful and sustained effort was required to acquaint referral agencies with the program and to persuade them of its potential benefits.

In-person presentations to referral agents were fundamental to successful recruitment. Sometimes these were supplemented by brochures and other written descriptions. Furthermore, to maintain a regular flow of referrals, it was useful to keep agencies well informed of the progress of clients they had already referred.

While it is unknown to what extent SSI and SSDI recipients were reluctant to enroll in the program, the complexity of the SSI and SSDI regulations do have the potential to pose an important deterrent to competitive employment. At minimum, staff members of future STETS projects should try to help referral agencies and potential participants, and/or their parents or guardians, to understand clearly the rules of these disability programs.

II. The Appropriateness of Different Types of Participants for STETS

Because sites were able to enroll a diverse group of individuals, it may be possible, after the impact analysis is completed, to determine what types of mentally retarded individuals are most appropriate for the STETS program. This is an important question, for it relates to the efficient use of resources by future programs. To the extent that it is possible to identify which types of individuals are likely to benefit, efforts can be concentrated on them, while alternative strategies can be devised to help persons who stand less chance of being helped by the program.

To the extent possible, the impact analysis will address the issue of who is appropriate for STETS by comparing the post-program experiences of various subgroups of enrollees with the experiences of similar subgroups in the control sample. The implementation analysis, while lacking control group results, has also addressed this issue, although in a more limited way. Relying on in-program performance measures and staff observations, it has assessed how well various kinds of participants were able to handle the program's demands while they were still enrolled.

The findings from the implementation analysis indicate that the types of individuals who can or cannot adequately meet the standards are not clearly identifiable on the basis of objective background characteristics. This conclusion is supported in part by the employer survey, which found that various demographic characteristics of Phase 2 participants were not strongly associated with the performance ratings they earned from their supervisors. Additionally, placement rates for those subgroups did not vary dramatically from the demonstration-wide average. Consistent with these findings, program staff members reported in interviews with MDRC researchers that it was difficult to predict at intake who would or would not do well in the program. In part, this was because a large proportion of participants who did not do well had emotional or behavioral problems that were not readily apparent in the intake interviews or from the information provided by referral agencies. Staff members reported, however, that often they could better judge appropriateness fairly soon after enrollment, when they had had an opportunity to observe participants working for a short period of time. (This is consistent with the finding that most terminations occurred during Phase 1 of the program.)

This analysis suggests that, on the basis of current data, future operators ought not to adopt rigid selection criteria for choosing participants. However, program planners might want to consider ways of incorporating a short "try-out" period, during which staff members could observe applicants.

III. Participants' Work Performance

During their program tenure, participants manifested a variety of work-related problems, including deficiencies in both work habits and skills. Common problems with work habits included inadequate attendance and punctuality; inappropriate interaction with supervisors and co-workers; inadequate concentration and endurance; difficulties in initiating, completing and changing tasks; and improper grooming and hygiene. Among work skills deficiencies were inadequate speed; poor reading and math; difficulties in understanding or remembering how to do certain tasks; forgetting to complete all tasks assigned; and inability to work according to a preset schedule. Of course, all participants did not have all of these deficiencies but, taken together, they form the core set of problems on which staff members focused their training efforts.

Previous research, as noted in Chapter I, suggests that retarded persons -- especially the mildly retarded -- more typically have trouble obtaining and keeping jobs because of poor work habits than because of unacceptable skills. The findings from this study support that interpretation. Staff observations, as well as MIS data, indicate that negative terminations were caused much less often by an inability to perform tasks than by behavioral and other problems.

Skill deficits were not insignificant, however. They accounted for over 12 percent of terminations. Furthermore, even among the more select group of participants who were evaluated in the employer survey, a substantial proportion were rated as performing less well in the amount and quality of their work than other workers who had been in similar jobs for about the same amount of time.

Thus, while deficiencies in work habits and skills were by no means so pervasive as to prevent all STETS participants from eventually entering unsubsidized jobs, they were common enough to signal a real need for work experience, training assistance and other support services. This finding supports the program's attempt to provide such experiences and services. It also lends credibility to another fundamental concept of STETS: its gradual increase in the demands and responsibilities imposed on participants who need time to adapt to the requisites of competitive employment.

IV. Work Experience and Training

The experiences of the sites suggest a number of lessons about the feasibility, and the advantages and disadvantages, of various strategies for preparing participants for competitive employment.

A. The Sheltered Versus Non-Sheltered Approach

Phase 1 can be operated in both sheltered environments and non-sheltered public or nonprofit agencies, but the choice of approach involves important trade-offs. First, the sheltered approach reduces the program's job development burden in Phase 1, since it is not necessary to find outside training jobs. Second, congregating participants in the same work setting (or in just a few settings, as in Tucson), eases counselors' travel burdens, allowing them to more easily monitor performance, instruct participants and intervene with special assistance. Use of a sheltered setting also probably allows a program to be less restrictive in selecting enrollees. Because they are not placed immediately into real work settings, the program's relationships with local employers are not jeopardized if workers prove to be unsuitable for the program at this point.

The non-sheltered model, however, has some key advantages over the sheltered approach. One is that Phase 1 jobs are in real world settings and thus more closely resemble Phase 2 and 3 jobs, which are likely to be service-oriented. (Unlike the jobs in subsequent phases, sheltered jobs tend to be assembly and packaging tasks.) Hence, non-sheltered Phase 1 participants may find it easier to make the adjustment to Phase 2 and then to regular employment. It may be possible, however, to create more service-oriented positions -- such as maintenance, messenger and clerical positions -- within sheltered settings.

Also, however, certain participants perform better in a more normal work environment. Some resent a sheltered environment, particularly if they are sensitive about being identified as mentally retarded or handicapped. For such individuals, as the Cincinnati staff in particular observed, the sheltered workshop may be "part of the problem" and may mask the participant´s real potential for competitive work. This suggests that future STETS programs using this sheltered model should try not to evaluate a participant´s capacity for a non-sheltered position solely on the basis of Phase 1 performance. Operators might also try to expedite Phase 2 placements for those whom they believe might perform better in a non-sheltered environment.

Another problem with the sheltered model is that non-STETS workers, who usually receive piece rates for their work, may resent program workers if they are paid the minimum wage, as in this demonstration. Cincinnati´s experience, however, suggests that this problem is not necessarily an unmanageable one.

The non-sheltered approach places responsibility for monitoring participants on their supervisors at the public and nonprofit agencies. The quality of these Phase 1 experiences thus depends largely on the quality of support and assistance that those supervisors are able and willing to provide. It is critical for programs using the non-sheltered approach to select Phase 1 worksites carefully, and having selected them, to work closely with the supervisors.

B. Assessment Strategies

Phase 1 was designed not only as a low-stress introduction to the world of work, but also as a period for careful staff assessment of participants´ employability problems and service needs. All of the sites chose to emphasize observational techniques -- careful examination of participants´ behavior and skills as they performed their Phase 1 jobs. Some sites also administered formal testing, but this came to be viewed as at most an occasionally useful, but by no means essential, complement to the observations. Indeed, St. Paul staff members concluded that the extensive formal evaluations they had required prior to Phase 1 work assignment were not useful at all.

All sites continued to observe participants in the subsequent phases during their worksite visits. In fact, training and assessment went virtually hand-in-hand throughout the program.

C. The 500-Hour Rule and Other Time Limits

In an effort to test a relatively quick transition to competitive employment, the program model imposed several constraints on length of stay. The requirement that participants be limited to 12 months of paid participation within a 15-month period was not found to be an unreasonable burden. Participants were enrolled in STETS for an average of about 10 months.

The 500-hour limitation on paid activities in Phase 1 was a more troubling guideline, primarily in the early stages of the demonstration. Some staff found this time limit insufficient for preparing a number of participants for Phase 2 jobs, particularly in the private sector. However, for the most part, it was concluded that if individuals were not ready for a Phase 2 job within 500 hours, they were also not likely to benefit from a modest extension of that limit. While some exceptions may be appropriate, the rule is an effective source of pressure on programs to pursue Phase 2 and 3 jobs with diligence.

D. Phase 2 in Real Work Settings

Operating Phase 2 in real work settings, whether in private sector firms or public or nonprofit agencies, is a feasible option. Many employers were willing to take on Phase 2 participants even though they were still program trainees. Furthermore, the employer survey shows that most supervisors of Phase 2 participants did not find either work performance or the demands of the program to be unacceptable. The majority said that they would again become involved with the program if asked to do so.

At certain Phase 2 worksites, however, staff members had to limit their monitoring and assistance, particularly in private sector firms where the jobs were unsubsidized. Some employers did not like counselors to disrupt the work process. One useful strategy was to visit participants before they began work or during their lunch breaks.

Compared to the other sites, New York relied more heavily on subsidized public and nonprofit agencies for Phase 2. One advantage of this approach was that staff members could more easily monitor and assist participants on the job and influence, through informal negotiations with the supervisors, the tasks assigned to participants. They could also, to some extent, see that participants were rotated through a variety of jobs, which would train them in multiple skills. One disadvantage, however, was that it was difficult for participants to move directly into Phase 3 jobs at the same worksite.

E. The Importance of Support Services During Phase 3

The final phase was intended to be a period during which staff provided follow-up support services to participants in order to help them adjust to their competitive jobs. These services were to be gradually reduced over a six-month period, at which point they were to end. The sites' experiences reveal that, for most participants who entered Phase 3, this treatment was sufficient to help them adapt to their jobs.

For some, however, independent employment created new stresses. Among these were the greater demands of Phase 3 employers, changes in job descriptions, or a change of employer or supervisor. Thus, several of the sites found that they had to provide significant amounts of counseling, and sometimes additional training, on an as-needed basis, for a small number of Phase 3 participants. While this kind of support was not extensive, it was considered important in helping certain participants to remain competitively employed.

V. Job Development

Job development in both Phase 2 and 3 proved to be a very difficult task. This difficulty is reflected in the results of the job development contact study, which found that only 4 percent of the employers contacted during the study period agreed to provide jobs. Nevertheless, the sites were able to recruit sufficient numbers of employers so that it was usually not necessary to terminate capable participants simply because jobs were unavailable. Yet, overall, the supply of jobs was tight -- so much so that other aspects of the program implementation were hampered.

For example, the long lead time needed for Phase 2 job development led several sites to keep a number of participants in Phase 1 positions longer than necessary. Many participants also had to be placed in a "hold" status after their allotted 500 paid hours because Phase 2 jobs were not yet available. A similar delay sometimes occurred between Phases 2 and 3. The limited supply of jobs in both phases also constrained the ability of the sites to match participants to jobs, according to their interests and capabilities, which in some cases may have adversely affected job performance.

Job development was difficult for several reasons, one being the deep recession during much of the demonstration period. Another was that the job developers in all sites except New York generally lacked sufficient experience in finding suitable regular jobs for this population. STETS was also a new program, and the sites had little time in which to refine and strengthen their job development techniques, or to establish a positive "track record" among employers. These difficulties were compounded by the nature of the population. Not only were participants mentally retarded, they were young and frequently non-white, and faced all the labor market obstacles associated with these factors.

Despite the constraints, many employers sponsored STETS enrollees. The employer survey shows that, among Phase 2 employers, altruism -- expressed as the desire to help participants or the community -- was an important reason for taking on STETS trainees. However, while this might have encouraged many employers to accept participants as trainees, it did not necessarily mean that they would hire them. Participants had to demonstrate a reasonable level of proficiency during Phase 2.

For most employers, factors other than altruism also influenced hiring decisions. A significant proportion of Phase 2 employers cited the financial subsidies offered by the sites, the promise of assistance in training, the previous work experience of participants in Phase 1, and the availability (to private sector firms) of the Targeted Jobs Tax Credit. It would thus be useful for operators of future programs to incorporate these incentives into their job development efforts.

The job development process varied among the sites. A comparison of the different approaches and divergent outcomes suggests a number of lessons about how this process might be improved.

- Job development appears to be less effective when that task is assigned to the same staff members who are responsible for counseling and training. Because job development is complicated and time-consuming, it is best considered as a specialized function within the program.

- The emphasis in job development is better placed on generating a "bank" of jobs -- that is, a supply of jobs that might be suitable for any number of clients -- rather than trying to find jobs tailored to specific individuals. In a tight labor market, the latter practice delays placement.

- Guidelines concerning the types of jobs and industries on which to target efforts need not be defined rigidly. Within realistic limits of participants' capabilities and other contingencies, a variety of jobs in a wide range of settings can be pursued. However, it is likely to take longer to find positions in larger firms because there are more procedures to be followed before hiring decisions can be made.

- It would be helpful for job developers to have business experience. This qualification is much more important than counseling or vocational rehabilitation experience. A background in business can help job developers understand and address the needs and concerns of employers.

- It is useful for job developers to consult routinely with program counselors and to meet with participants in order to gain a firm understanding of the strengths and weaknesses of the types of persons they must try to persuade employers to hire.

- Higher-level staff members in STETS or its sponsoring agency can usefully contribute to job development efforts, in part by presenting the merits of the program to groups of employers through special events and meetings.

- Advisory boards, composed of local businessmen and perhaps union leaders, can be helpful in directing job developers toward types of jobs and firms that are likely to provide employment opportunities for participants. However, an advisory board can only complement, and should not be expected to substitute for, the strong efforts of job developers.

VI. STETS in the Larger Network of Services for Mentally Retarded Persons

Given the basic feasibility of the STETS model, and its capacity to serve individuals with a diverse range of prior employment and training experiences, it is important to consider where the program might best fit into the larger network of services for mentally retarded persons.

The implementation analysis shows that the model is a fairly adaptable one, and that the program can be administered by a sheltered workshop, a state agency, or a nonprofit training organization. However, if STETS is part of a broader array of programs within a parent agency, it must have the strong commitment of high-level administrators in the parent organization. Also, as indicated by the experience of the Los Angeles site, the program is at a disadvantage if it relies on other sponsoring agency staff unless STETS has direct authority over their work. Because the Los Angeles director did not have that control, participants at that site were not given needed attention.

Another aspect of the larger network affecting program implementation is the flexibility of funding arrangements. Because funding agencies typically restrict the ways in which their monies can be used, it may be difficult to structure a program exactly as the model specifies. Some funding agencies, for example, may not pay wage subsidies for on-the-job training in private sector firms, or may not support participant wages at all. Others may place strict limits on the amount of work experience they will fund or the types of clients that can be served. Implementation is thus easiest when funding is flexible or when multiple sources of revenue, without overlapping restrictions, can be obtained.

While the STETS model appears to have considerable flexibility, this research cannot ascertain whether other types of organizations -- such as schools or vocational rehabilitation agencies -- could operate the program effectively. Nor can it assess the feasibility and value of many types of linkages (beyond simply the referral of clients) between outside organizations and STETS. Finally, this research cannot predict the capacity of the program to serve mentally disabled individuals other than the types of individuals enrolled in this demonstration. It would be useful for further research to address these issues.

It should also be remembered that the implementation issues analyzed in this report cannot answer other important questions that are relevant to a program replication effort. While the model appears feasible under a variety of conditions, it remains to be seen whether it actually leads to better post-program social and economic outcomes for participants. These issues will be addressed in the demonstration's impact and benefit-cost analyses.

FOOTNOTES

CHAPTER 1

1. Research on this issue is limited, and many of the previous studies suffer from serious methodological flaws. For example, many are very small-scale follow-up studies of retarded persons who were formerly in special education classes or a wide variety of vocational programs, making it difficult to generalize results to the larger population of retarded persons. Additionally, much of the research is outdated; most studies were conducted before 1970, under different economic circumstances and before many of the major legislative changes that expanded the rights of and services to handicapped persons. These studies also use different measures of employment success; some report on whether a respondent was employed at the time of the interview, while others focus on whether a person was "usually employed" or "ever employed." Studies are also not clear on the nature, quality or stability of employment. For a comprehensive review of these studies, see Conley (1973).

2. The category of "borderline retarded" was officially eliminated in the American Association on Mental Deficiency's 1973 revised definition of mental retardation; the classification is, however, still widely used. It should also be noted more generally that behavioral deficiencies, in addition to low intelligence, are critical to the official definition of mental retardation adopted by the American Association on Mental Deficiency, which reads as follows: "Mental Retardation refers to significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behavior and manifested during the developmental period" (Grossman, 1973:11).

3. See, for example, L. Hartlage, P. Rolland, and D. Taraba, "Perceptions of Various Types of Disabilities by Employers," Psychological Aspects of Disability, Vol. 18, 1971; C. A. Williams, "Is Hiring the Handicapped Good Business?" Journal of Rehabilitation, Vol. 38, 1972; James A. Colbert, Richard A. Kalisk, and Potter Chang, "Two Psychological Portals for Entry for Disadvantaged Groups," Rehabilitation Literature, July 1973; H.E. Yuker, "Attitudes of the General Public Toward Handicapped Individuals," in J.K. Weston (ed.) The White House Conference on Handicapped Individuals, Vol. 1, Washington, DC.: U.S. Government Printing Office, 1977; John Schroedel and Richard Jacobson, Employer Attitudes Towards Hiring Persons with Disabilities, Alberston, New York: Human Resources Center, 1978.

4. See, for example, Hill and Wehman, 1979; Kochany and Keller, 1982.

5. Various official protections do exist, however, against an immediate loss of eligibility.

6. A similar situation is faced in other transfer payment programs, such as Aid to Families with Dependent Children, under which benefits are reduced as income levels rise. The financial return from working in some jobs may thus be lower than the benefits received when a person is not working (or is working less), thereby creating a disincentive for employment.

7. Reflecting the complexity and confusion that sometimes surround these programs, MDRC discovered in informal discussions with staff members at several Social Security district offices early in the STETS demonstration that some uncertainty existed among the staff themselves about changes in SSI work incentive provisions that were incorporated into the 1980 Social Security Amendments.

8. In 1979, national CETA regulations were amended in an effort to help handicapped individuals who were not members of economically disadvantaged families gain better access to CETA-funded employment programs. The following change was enacted: "Handicapped persons will not be required to meet an income level to be considered economically disadvantaged, provided that their handicaps present substantial barriers to employment." This standard is continued under JTPA through a provision which allows Service Delivery Areas to enroll up to 10 percent of their participants from non-economically disadvantaged groups that face substantial employment barriers (Smith, 1983).

9. For more information on these programs, see Moss, 1980; Wehman, 1981; Schneider, Rusch, Henderson and Geske, 1982; Hill and Wehman, 1983.

10. Some recent partial exceptions to this lack of attention to operational and cost issues are studies of the several university-based employment programs focusing on more severely retarded persons. These programs have been designed and carefully monitored by university researchers. (See, for example, Hill and Wehman, 1983; Rusch; 1982, and Moss, 1980.)

11. For a full report on the National Supported Work Demonstration, see MDRC, 1980

12. In addition to [illegible]an Waterman, Richard Nathan and Gilbert Steiner of MDRC's Board, the Advisory Committee included Edward Zigler, Sterling Professor of Psychology, Yale University; Phillip Roos, former Executive Director of Association for Retarded Citizens of the United States; Howard Rosen, private manpower consultant; Jay Rochlin, American Telephone and Telegraph Company; and Lawrence Glantz, Human Resources Development Institute of the A.F.L.-C.I.O.

13. MDRC recognized that an IQ score is an imperfect and controversial measure of functional ability. Therefore, the sites were also

allowed to consider applicants eligible for STETS if they were judged to be so by referral agencies using other criteria of retardation, provided that the evidence was verifiable.

14. The original research design for the impact analysis called for a sample of 1,000 STETS applicants to be randomly assigned to the experimental and control groups. Follow-up interviewing was intended to continue for three years after random assignment. These plans had to be altered in response to funding constraints.

CHAPTER TWO

1. Compared to recruitment sources at other sites, DDD, the agency from which Tucson took many of its enrollees, served a higher proportion of the moderately retarded, who were more likely than higher-functioning individuals to be receiving SSI. Moreover, DDD counselors were likely to inform their clients if they were eligible for SSI, and this policy, too, may have raised the level of SSI recipients in Tucson's recruitment pool.

CHAPTER III

1. Of course, to some extent, these behaviors may reflect deficiencies in work habits as well as skills.

2. Other studies have also identified attendance and tardiness problems, slow performance, inability to change routines, poor social skills, and "maladjustive behavior" as common reasons for job loss among mentally retarded persons. See, for example, Hill and Wehman, 1979, and Kochany and Keller, 1981.

3. The division of responsibilities among staff members and the titles attached to similar staff positions varied across the sites. Therefore, for ease of presentation, this report will often use generic titles that reflect the major functions performed by staff members (e.g., "job developer," "counselor").

4. All names throughout this report have been changed to protect the identities of the people observed and interviewed.

5. In the first eight months, a different agency provided these services, but a contract dispute prompted a shift to The Handlers, Inc.

6. In addition, the St. Paul site hired as a consultant a vocational counselor, who had extensive experience in working with the mentally retarded, to assist in training participants with whom

the program had special difficulties. It also drew on the assistance of regular MDI job trainers.

7. See Gold, 1973.

8. These tests included WRAT, WREST and COATES.

9. MIS data reveal that approximately one-third of the enrollees in St. Paul waited at least a month to begin Phase 1 activities.

10. Through piece rates, Phase 1 participants in St. Paul tended to earn between $1.00 and $2.00 per hour. Few earned 100 percent of the minimum wage.

11. This is apparent from Table 3.1, which shows the distribution of Phase 1 and 2 jobs according to their DOT codes. As an illustration, 56.3 percent of Phase 1 participants in Tucson were assigned benchwork jobs, while only 14.7 percent of Phase 2 participants were placed in such jobs.

CHAPTER IV

1. Participants were considered to be "inactive" if they received no program services, in addition to not having a paid job. They were placed in a "hold" status if they received counseling or other support services for at least one hour per week.

2. See Table A.6 for data on the size of firms and agencies that accepted a STETS participant.

3. It is interesting to note that an MDRC study of employers involved with an employment program for economically deprived youths (the Youth Incentive Entitlement Pilot Projects) found that 67 percent of employers cited "a chance to do something for disadvantaged youths" as one reason for bringing on a participant from that program, and 48 percent cited this as the most important reason (Ball, et al., 1981:37).

4. Employers in public sector and nonprofit firms were excluded from the analysis of responses to this item because in the New York and Los Angeles sites, numerous Phase 1 jobs extended into Phase 2. In such circumstances, Phase 2 participants would not have come to the employers with previous STETS training, since they began working for the organizations in Phase 1.

CHAPTER V

1. See Appendix C for a more detailed discussion of the methodology for the employer survey.

2. However, a comparison of Phase 2 participants who had been assigned to a supervisor for less than one month (but more than two weeks) to those who had been assigned for one month or more revealed no major differences in terms of supervisor evaluations of performance.

3. For this analysis, the categories of these variables were defined as follows: age (18-20, 21-24), race (white, non-white), level of retardation (moderate, mild, borderline), secondary handicap (yes, no), high school completion (yes, no), prior work experience (yes, no), receipt of SSI and SSDI (yes, no).

4. See, for example, Ingalls, 1978.

5. On the basis of Fisher's Exact Test (two-tail), p=.0743 for race by productivity, p=.0484 for race by quality, and p=.0001 for race by training time.

6. An ordinary least squares regression was also performed in an effort to examine the independent influence of each background variable on the three performance variables. None of the background factors was found to have significant influence, with the exception of receipt of SSI or SSDI on productivity (p=.0701). However, because each of the dependent variables is dichotomous with an uneven clustering of values across its two categories, the results from this analysis may be biased and should therefore be interpreted cautiously.

   The only other relationship to show statistical significance -- although marginal -- was between training time and possession of a high school certificate or diploma at enrollment (p=.0961). Those with a certificate or diploma were more likely to require more training time. The reasons for this are unclear.

7. Chapter 6 presents some preliminary data from the impact analysis on experimental-control differences at six months after random assignment. However, since many experimental group members were still in the program at that point, the findings do not reflect post-program outcomes.

8. Because some participants changed jobs during Phase 3, only their first jobs during that phase are considered here.

9. Additional information on fringe benefits is available from the

employer survey. Although it focused only on Phase 2 employers, many participants were already on the employers' payrolls, indicating that the chances were good that their positions would evolve into Phase 3 placements. The benefits provided by their jobs are thus suggestive of what many participants could expect to receive as Phase 3 employees. As shown in Table A.5, the vast majority of participants in the employer survey sample would be eligible for workmen's compensation, and half would receive health insurance. Over 63 percent would receive paid vacation days, but only one-quarter would get pensions with contributions made by the employer.

10. For example, MIS data show that among the 83 percent of Phase 3 participants who had at least one contact with the program during their first month after transition, 90 percent were employed at the same organization and 5 percent were employed at new organizations. The employment status of the 17 percent of participants who were not contacted during their first month in Phase 3 is not known. Among the 61 percent of Phase 3 participants contacted after six months in that status, 84 percent were still employed, in either the same or a new organization. Again, the employment status of those not contacted at this point is not known. Because not all participants were contacted, these data on job retention must be interpreted cautiously.

CHAPTER 6

1. The research sample is drawn only from those program applicants who were randomly assigned to either experimental or control status. Therefore, the full sample includes all control group members, but only 88.4 percent of the 284 enrollees in STETS. Furthermore, follow-up interviews were attempted only for sample members who completed a baseline interview.

2. The completion rate for the six-month survey, as with the baseline, was approximately 95 percent, resulting in a potential six-month sample of 293 individuals. However, due to the timing of the analysis for this report, the sample discussed here includes only 267 individuals.

3. See A. Bloomenthal et al., 1982, for complete details of the pilot study.

4. Tables 6.2 and 6.3 also indicate that most of the differences calculated between the mean levels of labor market activities for the control and experimental groups are statistically significantly at least at the 10 percent level. This reinforces the view that the opportunities provided by STETS led to increased participation in labor-market activities associated with training and to

decreased participation in substitute activities. While this statistical evidence is useful, it is important to reemphasize that the results may change in the final impact analysis, which will statistically adjust for baseline differences between the experimental and control groups.

CHAPTER 7

1. For each site, the dates selected to represent the steady-state period were based on the five consecutive months during which the program served a relatively high number of active participants compared to the number served in the other months of the demonstration.

   Five-month intervals were also used for calculating the sites' steady-state service project revenue and employers' direct payments to participants. However, the start of this period in each site was defined to occur three months after the start of the steady-state period. This was to reflect the delays experienced by the sites in receiving revenues.

2. Enrolled time refers to the time from the date of random assignment to the date of exit from the program. It should be recalled from Chapter III that participants were not always "active" (i.e., directly receiving program services) during this time. However, it is also important to note that staff efforts were often devoted to participants while they were inactive. This would include time spent developing jobs, maintaining clients' MIS and other program records, and checking periodically on their status and well-being.

3. Research-related activities included the additional effort to recruit, interview and randomly assign twice as many applicants as were enrolled in the program (since half were assigned to the control group); a portion of the time devoted to completing MIS and other paperwork related to the research; and the time spent by staff members in research-related interviews and meetings with MDRC researchers and field representatives. Project directors were asked to estimate, for each member of their staff, the proportion of time that was devoted to these activities. The cost of these activities was then derived by multiplying the time estimates by the labor costs for the staff members involved. The average cost for research-related activities was thereby determined to be about 5 percent of the sites' operating expenses. Each site's total reported costs were thus reduced by 5 percent before adjusting for service project revenue.

4. The following formulas were used in calculating net unit costs, after reducing total costs by 5 percent for research-related

expenses.

Net Cost Per Service Year: Total cost for the steady-state period minus service project revenue, divided by the sum of the number of participants enrolled during each of these months, multiplied by 12 months.

Net Cost Per Participant: Total cost for the steady-state period minus service project revenue, divided by the sum of the number of participants enrolled during these months, multiplied by the average length of stay (enrolled time) in the program.

5. It is important to note that the amount of each site's service project revenue and direct employer payments to participants was somewhat dependent upon the relative proportion of participants in Phase 1 versus Phase 2, since such revenue was generally higher for Phase 2 jobs, many of which were unsubsidized. Consequently, these estimates are sensitive to the date defining the end of the steady-state period in each site, because the ratio of Phase 2 participants was higher later in the demonstration. For the demonstration as a whole, almost two-thirds of all active participants in STETS were in Phase 1 during the steady-state period. This is different from what might be expected during a more extended normal operating period, during which more participants are likely to be in Phase 2 than in Phase 1, since the average length of stay is likely to be longer in the second phase of the program. Because the reverse was true in this analysis, the actual ongoing cost of operating STETS may be lower than the estimates reported here.

6. It is also apparent from Table 7.1 that Cincinnati's net operating cost was somewhat lower than New York's because the combination of service project revenue and direct employer payments was higher; without these offsetting monies, Cincinnati would have had a higher operating cost than New York. Among all the sites, New York had the lowest amount of service project revenue and employer payments. This is because, in contrast to other sites, New York's Phase 2 participants were generally in subsidized training positions; an unsubsidized position marked the beginning of Phase 3 at that site. In some cases, however, the New York program was able to obtain reimbursements for participants' wages through its "fee for service" arrangement, which generally lasted from 2 to 12 weeks.

7. If it is assumed that a dollar of benefit or cost to one person equals a dollar of benefit or cost to any other person, the participant and nonparticipant perspectives can be added together to obtain the social perspective. This statement holds because the participant and nonparticipant perspectives are defined to be mutually exclusive and exhaustive. Thus, when the findings from these perspectives are added together, only benefits or costs that

accrue to one group with no offsetting cost or benefit to the other group (i.e., those involving the use, rather than the redistribution, of resources) will remain.

8. Thus, the value of output should not be less than what was actually paid. Of course, this argument is weakened if altruism prompts employers to overpay because of their desire to support the STETS program and its participants. In either event, direct estimates (discussed next in the text) offer a more accurate estimate of the resource value of participant output.

9. The studies were completed between September and December 1982. The two-week reference periods, defined individually for each site, corresponded to the two weeks prior to the site visit.

APPENDIX A

SUPPLEMENTARY TABLES

TABLE A.1

PERCENTAGE DISTRIBUTION AND AVERAGE LENGTH OF ACTIVE TIME IN STETS, BY PHASE AND PROGRAM SITE

Length of Active Time	Los Angeles	New York	Cin-cinnati	St. Paul	Tucson	All Sites
Phase 1[a]						
1 Month or Less	6.9	6.2	3.3	11.4	2.0	5.8
2 - 3 Months	20.7	29.2	23.3	20.5	9.8	21.2
4 - 5 Months	55.2	49.2	25.0	20.5	15.7	34.5
6 - 7 Months	8.6	13.8	35.0	15.9	23.5	19.4
8 - 9 Months	5.2	0.0	5.0	6.8	21.6	7.2
10 - 12 Months	3.4	0.0	5.0	13.6	17.6	7.2
More Than 12 Months	0.0	1.5	3.3	11.4	9.8	4.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Average Duration (Months)	3.9	3.5	4.9	5.8	7.5	5.0
Number of Enrollees	58	65	60	44	51	278
Phase 2[b]						
1 Month or Less	2.8	9.6	5.0	4.5	5.6	5.9
2 - 3 Months	13.9	23.1	12.5	40.9	11.1	18.8
4 - 5 Months	25.0	19.2	37.5	22.7	25.0	25.8
6 - 7 Months	8.3	15.4	32.5	4.5	19.4	17.2
8 - 9 Months	16.7	15.4	10.0	27.3	22.2	17.2
10 - 12 Months	33.3	13.5	2.5	0.0	8.3	12.4
More Than 12 Months	0.0	3.8	0.0	0.0	8.3	2.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Average Duration (Months)	6.4	5.5	4.6	4.1	6.4	5.5
Number of Enrollees	36	52	40	22	36	186[c]
Phases 1 and 2 (Combined)[d]						
1 Month or Less	6.9	3.1	3.3	11.4	2.0	5.0
2 - 3 Months	12.1	7.7	11.7	11.4	3.9	9.4
4 - 5 Months	13.8	13.8	6.7	13.6	9.8	11.5
6 - 7 Months	15.5	15.4	21.7	15.9	17.6	17.3
8 - 9 Months	12.1	20.0	10.0	11.4	2.0	11.5
10 - 12 Months	13.8	16.9	33.3	13.6	17.6	19.4
More Than 12 Months	25.9	23.1	13.3	22.7	47.1	25.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
Average Duration (Months)	7.9	8.3	8.0	7.8	11.5	8.6
Number of Enrollees	58	65	60	44	51	278

(continued)

TABLE A.1 (continued)

SOURCE: MDRC tabulations of Monthly Status Change Forms in the STETS Information System.

NOTES: Percentage distributions may not add exactly to 100.0 because of rounding.

[a] Includes Phase 1 active time for enrollees who entered Phase 1.

[b] Includes Phase 2 active time for enrollees who entered Phase 2.

[c] Excludes one enrollee in Los Angeles for whom data are missing.

[d] Includes Phase 1 and Phase 2 active time for enrollees who were ever active in STETS.

TABLE A.2

SPEARMAN RANK-ORDER CORRELATION COEFFICIENTS FOR SELECTED DIMENSIONS OF WORK PERFORMANCE BY PHASE 2 PARTICIPANTS[a]

Dimension of Performance	Attendance	Getting to Work On Time	Motivation	Productivity	Quality of Work Done	Getting Along With Co-Workers
Attendance	1.0000	.3957	.3396	.3504	.0157	.0840
Getting to Work On Time		1.0000	.0228	.1099	.1897	.0342
Motivation			1.0000	.4567	.2640	.3251
Amount of Work Done (Productivity)				1.0000	.5037	.1809
Quality of Work Done					1.0000	.0938
Getting Along With Co-Workers						1.0000

SOURCE: MDRC tabulations of data from supervisor reponses to the STETS Employer Survey Instrument.

NOTES: The survey was administered to employers of Phase 2 participants at all five STETS sites between December 1982 and April 1983. Sample size is 100.

Responses of "Don't Know" were omitted from the calculations; at most, these included 3 observations for any correlation coefficient.

[a] The values for each variable in the matrix were collapsed into dichotomous categories based upon supervisor evaluations of the STETS participant compared to other new workers in similar jobs. For "Getting Along With Co-Workers," a value of "1" was assigned if a participant received a rating of "Very Well" or "Fairly Well"; a value of "0" was assigned for ratings of "Not Too Well" and "Poorly." For all other variables, a value of "1" was assigned if a participant received a rating of "As Well As," "Somewhat Better Than," or "Much Better Than" other employees in similar jobs for about the same amount of time; a value of "0" was assigned for ratings of "Somewhat Worse" and "Much Worse."

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TABLE A.3

REASONS CITED BY SUPERVISORS FOR LOWER PRODUCTIVITY AND LOWER QUALITY OF WORK AMONG PHASE 2 PARTICIPANTS COMPARED TO OTHER NEW WORKERS IN SIMILAR JOBS

Reason	Percent of Participants
Productivity	
Poor Motivation or Concentration	24.1
Difficulty in Understanding, Remembering or Doing Tasks	37.9
Performed Tasks More Slowly	51.7
Physical or Other Problems	13.8
Number of Participants	29
Quality	
Lower Motivation or Bad Attitude	19.1
Difficulty Understanding or Remembering Tasks	33.3
Work Not Done Correctly or Carefully	57.1
Number of Participants	21

SOURCE: MDRC tabulations of data from supervisor responses to the STETS Employer Survey Instrument.

NOTES: The survey was administered to employers of Phase 2 participants at all five STETS sites between December 1982 and April 1983.

More than one reason was cited for some participants.

This table includes those participants who received a rating of "Somewhat Worse" or "Much Worse" for "Amount of Work Done" (Productivity) and "Quality of Work Done."

TABLE A.4

PERCENTAGE DISTRIBUTION OF SUPERVISOR REACTIONS TO THE AMOUNT OF TIME COUNSELORS SPENT WITH PHASE 2 PARTICIPANTS AT THE WORKSITE, BY AMOUNT OF TIME SPENT PER WEEK

Supervisor Reaction[a]	Less than 1 Hour	1 Hour or More
Positive or Neutral	91.4	79.2
Negative	8.6	20.8
Total	100.0	100.0
Number of Participants[b]	58	24

SOURCE: MDRC tabulations of data from supervisor responses to the STETS Employer Survey Instrument.

NOTES: The survey was administered to employers of Phase 2 participants at all five STETS sites between December 1982 and April 1983.

[a] A supervisor's reaction was coded as "positive or neutral" when he or she wished that the counselor had spent the same or more time than was actually spent with the participant, or said that it did not matter. A supervisor's reaction was coded as "negative" if he or she wished that the counselor spent less time than was actually spent with the participant.

[b] Excludes 18 STETS participants whose supervisors, when asked their reaction, answered "Don't Know" or did not respond.

TABLE A.5

PERCENT OF PHASE 2 PARTICIPANTS ON THE EMPLOYER'S PAYROLL WHO RECEIVED SELECTED FRINGE BENEFITS

Fringe Benefit	Percent of Participants[a]
Workmen's Compensation	88.5
Paid Vacation Days	63.5
Health Insurance	50.0
Paid Holidays	48.1
Paid Sick Days	39.1
Pension	25.0
Number of Participants	52

SOURCE: MDRC tabulations of data from employer responses to the STETS Employer Survey Instrument.

NOTES: The survey was administered to employers of Phase 2 participants at all five STETS sites between December 1982 and April 1983.

[a] Some participants received more than one fringe benefit from employers.

TABLE A.6

PERCENTAGE DISTRIBUTION OF SIZE OF FIRMS OR AGENCIES THAT ACCEPTED A PHASE 2 PARTICIPANT

Number of Workers[a]	Percent of Firms/ Agencies
Fewer Than 25	3.0
25-49	12.1
50-99	8.1
100-249	28.3
250-499	20.2
500-999	18.2
1000 or more	9.1
Don't Know	1.0
Total	100.0
Number of Firms/Agencies	99

SOURCE: MDRC tabulations of data from employer responses to the STETS Employer Survey Instrument.

NOTES: The survey was administered to employers of Phase 2 participants at all five STETS sites between December 1982 and April 1983.

[a] The number of workers was calculated by adding the number of full-time workers and one-half of the number of part-time workers at the firm/agency. If the number of part-time workers was unknown, the average number of part-time workers among organizations whose number of part-time workers was known was used as a proxy.

APPENDIX B

TECHNICAL ASPECTS OF THE EMPLOYER SURVEY AND JOB DEVELOPMENT CONTACT STUDY

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TECHNICAL ASPECTS OF THE EMPLOYER SURVEY AND JOB DEVELOPMENT CONTACT STUDY

I. Employer Survey

The STETS employer survey, conducted between December 1982 and April 1983 in all five sites, was administered to employers who at the time of the interview were employing or had employed Phase 2 trainees. The interview was divided into two sections. The first part, which was administered to the person at the firm or agency who made the decision to bring on a STETS participant, inquired about the reasons for that decision. The second section was addressed to the person who was serving or had served as the trainee's direct supervisor (sometimes, but not always, synonymous with the person who made the hiring decision). Supervisors were asked to evaluate the performance of their trainees and to describe their contact with and reactions to the STETS counselors who visited the worksite.

All worksites where a Phase 2 participant had worked for at least two weeks were contacted. The response rate was high: There were answers from 93 percent of the 123 worksites contacted, although for 11 percent of the responses only one of the two main parts of the interview was completed.

Some supervisors had worked with more than one Phase 2 participant. To minimize the burden on those respondents, they were asked to evaluate only up to two participants. In the few cases where more than two participants had worked for a given supervisor, the names of two participants to be discussed were selected randomly, except that priority was given to participants currently at the worksite. Also, in cases where participants had been assigned to more than one worksite during Phase 2, only the most recent of their supervisors was asked for an evaluation.

Because not all Phase 2 participants were evaluated, it is necessary to determine whether the survey sample was representative of the larger group. To answer this question, MIS data on selected background characteristics were compared for participants included and not included in the survey. The differences between the samples were not statistically significant for age, sex, level of retardation, presence of secondary handicap, ethnicity, and possession of a high school diploma or equivalency certificate. Those included in the survey were somewhat less likely to have participated in an employment or training program prior to STETS, and they were also somewhat less likely to have been receiving SSI or SSDI at enrollment. In general, though the analysis suggested that individuals included in the survey were representative of all Phase 2 participants.

Survey data were collected primarily through telephone interviews by MDRC researchers. However, for 19 percent of the worksites in the sample, the interview was conducted in-person by a researcher from Mathematica Policy Research (MPR), as part of the value of output analysis for the benefit-cost evaluation. (See Chapter VII.) This eliminated the need to impose two separate interviews on employers and supervisors. To assess the potential bias of using these two approaches, the firms and agencies interviewed by MDRC and MPR were compared in terms of participants' performance evaluations and other selected variables such as size of staff, sector and types of fringe benefits provided. In general, the differences between the two groups of interviews were minor.

II. Job Development Contact Study

The job development contact study was conducted in all sites from September 1, 1982 through April 30, 1983. However, due to problems in implementing the study, data from the Los Angeles site were not included in the analysis. Using special forms prepared by MDRC, job developers kept a record of the contacts they made with employers during the study period. The study made a distinction between "preliminary" and "substantive" contacts. Preliminary contacts were documented for all employers who were reached during the study period and had not previously been contacted by the program. A contact was considered substantive if the job developer was able to talk with the employer long enough to explain the key elements of STETS.

For preliminary contacts, the job developers recorded, among other information, whether or not the employer gave an immediate refusal or was interested in learning more about the program. They also noted any instance in which a preliminary contact led to a substantive one. For substantive contacts, they recorded the sector and type of business, the source through which the organization had been identified and the employer's response. Any follow-up contacts with employers who indicated that they were interested in the program but had no available openings were documented for up to 90 days after the first substantive contact.

APPENDIX C

DATA COLLECTION AND ANALYTICAL METHODS FOR THE IMPACT ANALYSIS

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DATA COLLECTION AND ANALYTICAL METHODS FOR THE IMPACT ANALYSIS

I. Interviewing the Mentally Retarded

Because of the potential difficulty of interviewing mentally retarded persons, a pilot study was undertaken by Mathematica Policy Research to assess the completeness and quality of data that such an effort would yield. The study was conducted with 103 early STETS enrollees in Cincinnati, New York and Tucson. For each sample member, responses to the in-person interviews were compared with information obtained from records of the STETS agency and with responses to in-person interviews with proxy respondents (parents, guardians or counselors), using identical questions. Completion rates were high for both primary and proxy respondents (95 and 99 percent, respectively).

Findings indicated that it was feasible to collect data based on self-reported interviews with the STETS sample members. The incidence of missing or incomplete data in the interviews with primary respondents was at least as low as in the interviews with proxies; and there was some evidence that the proxy interview data were as susceptible to error as data from the primary interviews, or even more so. Results also indicated, however, that proxy reports could generally be used to replace or supplement missing information on specific items in the participant interviews. Furthermore, there was a great deal of consistency between data from the two sets of interviews.

The study concluded that it might be necessary to use proxy interviews for approximately 30 percent of the sample for the baseline and follow-up surveys; however, for the six-month follow-up interview, they were necessary in only 19 percent of the cases. Furthermore, when proxy interviews were necessary, they were almost always available (in over 96 percent of the cases in which they were called for).

In the analysis for this report, the proxy interview served as the basic source for six-month data for 6 percent of the sample members. For an additional 11 percent of the sample members, proxy-interview data substituted for primary interview data for selected items.

In the interviews, abstract concepts were, whenever possible, broken down into discrete components. For example, rather than being asked to recall the number of hours they worked per day, sample members were asked what time they started work, when they stopped and how much time they had for a lunch break. Similarly, independence in financial management was measured by a series of questions about shopping, bill-paying and banking.

Also to improve accuracy, redundancy was explicitly built into the employment and training modules to enable respondents to report on these activities through responses to any one of a series of questions. Furthermore, in each of the four surveys, respondents were asked only about current and very recent activities to avoid the confusion that might result from a lengthy recall period. This "point-in-time" approach, which improves the quality of the data at the expense of completeness, represents a necessary compromise for this population.

II. Activity Measures in the Six-Month Interview

In the analysis of the activities of treatment and control group members at six months after random assignment, when a considerable share of treatment group members were still participating in STETS, three specific outcomes were studied: (1) labor-market activity; (2) financial management skills; and (3) the extent to which sample members relied on Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI) benefits and the amount of such benefits. The first two of these measures are discussed in more detail below.

Labor Market Activity. To define the most important labor market activity of sample members, the researchers created a hierarchy of activities arranged from "highest" to "lowest." They were as follows: regular (or non-training-related) paid jobs (highest), training jobs, participation in sheltered workshops/activity centers, unpaid jobs, training without a job attached, attendance in school, and inactive (i.e., none of the preceding).

Respondents were placed in the regular category only when they indicated that their jobs were not "part of a training program about work." The training jobs category included jobs reported to be (1) "part of a training program about work" or "work-study" jobs, or (2) part of a school curriculum including paid work. The sheltered workshop category included all paid jobs at workshops and activity centers, whether or not they were reported to be part of a training program. The unpaid jobs category covered a wide range of activities, including such unpaid work-study positions as being a cafeteria aide or sports-team manager. While a review of case records shows that most such jobs entailed specific hours and responsibilities, many had a large social or recreational component.

Each individual was assigned to the highest category for which participation was reported, even if he or she might have spent more time in an activity assigned to a lower category. A STETS job was assigned to either the training job or sheltered workshop category, depending on the nature of the placement. If a sample member had held more than one paid job, the researchers focused on the one with the most regularity and longest hours. When interview data were ambiguous, they were refined with information on the services provided by the agency that the respondent reported had provided the job or training.

Financial Management Skills. A composite measure of financial management skills was used. It was constructed from questions on three aspects of money-handling and financial activities: banking, shopping and purchasing, and bill-paying. The sample member was defined as having such skills if he or she was involved in at least two of the three activities and was able to conduct each without assistance. Given the problems facing mentally retarded young adults and the fact that they would have to have not only the ability but also the opportunity to perform such activities, this may be a strict standard.

III. Analytical Method

As noted earlier, the impact analysis for the STETS evaluation used point-in-time data on sample members' activities and experiences. Such data do not enable the analyst to estimate the length of employment or service use during the first six months post-baseline. In subsequent analyses, many of these patterns of employment and service use will be estimated through linear extrapolation between points of observation. At present, however, the analysis is confined to evaluating sample members' activities at the first point-in-time observation.

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